

Science

Communication

Uni Basel – 5.12.2024

Every dot has an identity



Superdot Studio

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Darjan Hil

Exam
12.12.24

Questions for the exam?
Assigement adjustments possible

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Modular Information Design

Europe in numbers

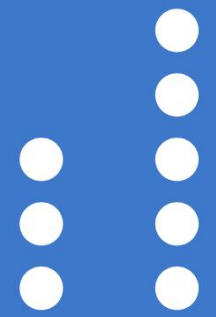
| COUNTRY | CODE | Total Pop2021 in1mio | DiffPop 2021_2011 in percent | LandArea 2022 in_1000KM2 | PopDensity per km2 2020 | Degree of urbanisation 2021 | Position Europa | In E.U. | Euro | Pop a*a |
|---------------|------|----------------------|------------------------------|--------------------------|-------------------------|-----------------------------|-----------------|---------|---------|---------|
| Iceland | IS | 0.4 | 16% | 103 | 4 | 94% | North | non EU | no EURO | 0.6 |
| Latvia | LV | 2 | -9% | 63 | 31 | 68% | North | in EU | EURO | 1.4 |
| Croatia | HR | 4 | -6% | 56 | 72 | 58% | South | in EU | EURO | 2.0 |
| Norway | NO | 5 | 10% | 385 | 15 | 83% | North | non EU | no EURO | 2.3 |
| Switzerland | CH | 9 | 10% | 41 | 219 | 74% | West | non EU | no EURO | 2.9 |
| Hungary | HU | 10 | -3% | 91 | 107 | 72% | East | in EU | no EURO | 3.1 |
| Portugal | PT | 10 | -3% | 91 | 112 | 67% | South | in EU | EURO | 3.2 |
| Romania | RO | 19 | -5% | 234 | 84 | 54% | East | in EU | no EURO | 4.4 |
| Spain | ES | 47 | 2% | 503 | 95 | 81% | South | in EU | EURO | 6.9 |
| France | FR | 68 | 4% | 634 | 123 | 81% | West | in EU | EURO | 8.2 |
| SUM or MEDIAN | | 175 | -0.5% | 2'202 | 89.5 | 73% | 10 | 10 | 10 | |
| CATEGORY | | Total Pop2021 in1mio | DiffPop 2021_2011 in percent | LandArea 2022 in_1000KM2 | PopDensity per km2 2020 | Degree of urbanisation 2021 | Position Europa | In E.U. | Euro | |
| Iceland | IS | | | 103 | 4 | 94% | North | non EU | no EURO | 0.6 |
| Latvia | LV | | | 63 | 31 | 68% | North | in EU | EURO | 1.4 |
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| Hungary | HU | | | 91 | 107 | 72% | East | in EU | no EURO | 3.1 |
| Portugal | PT | | | 91 | 112 | 67% | South | in EU | EURO | 3.2 |
| Romania | RO | | | 234 | 84 | 54% | East | in EU | no EURO | 4.4 |
| Spain | ES | | | 503 | 95 | 81% | South | in EU | EURO | 6.9 |
| France | FR | | | 634 | 123 | 81% | West | in EU | EURO | 8.2 |

Modular Information Design

Elements of quantity: countable

Quantity

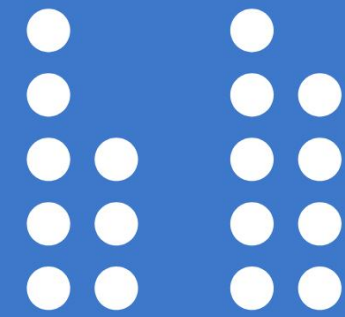
2A.2



Line length
Countable

Quantity

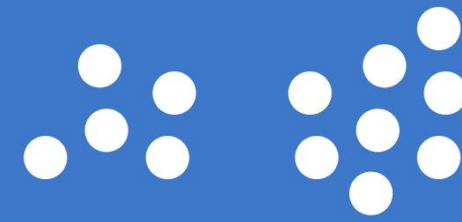
2A.4



Line length
Countable with line break

Quantity

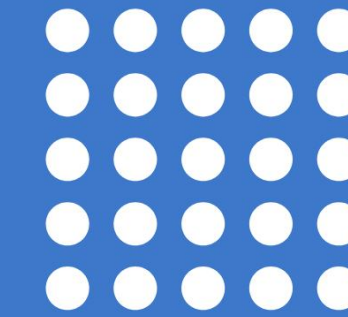
2A.6



Area size
Countable

Quantity

2A.13



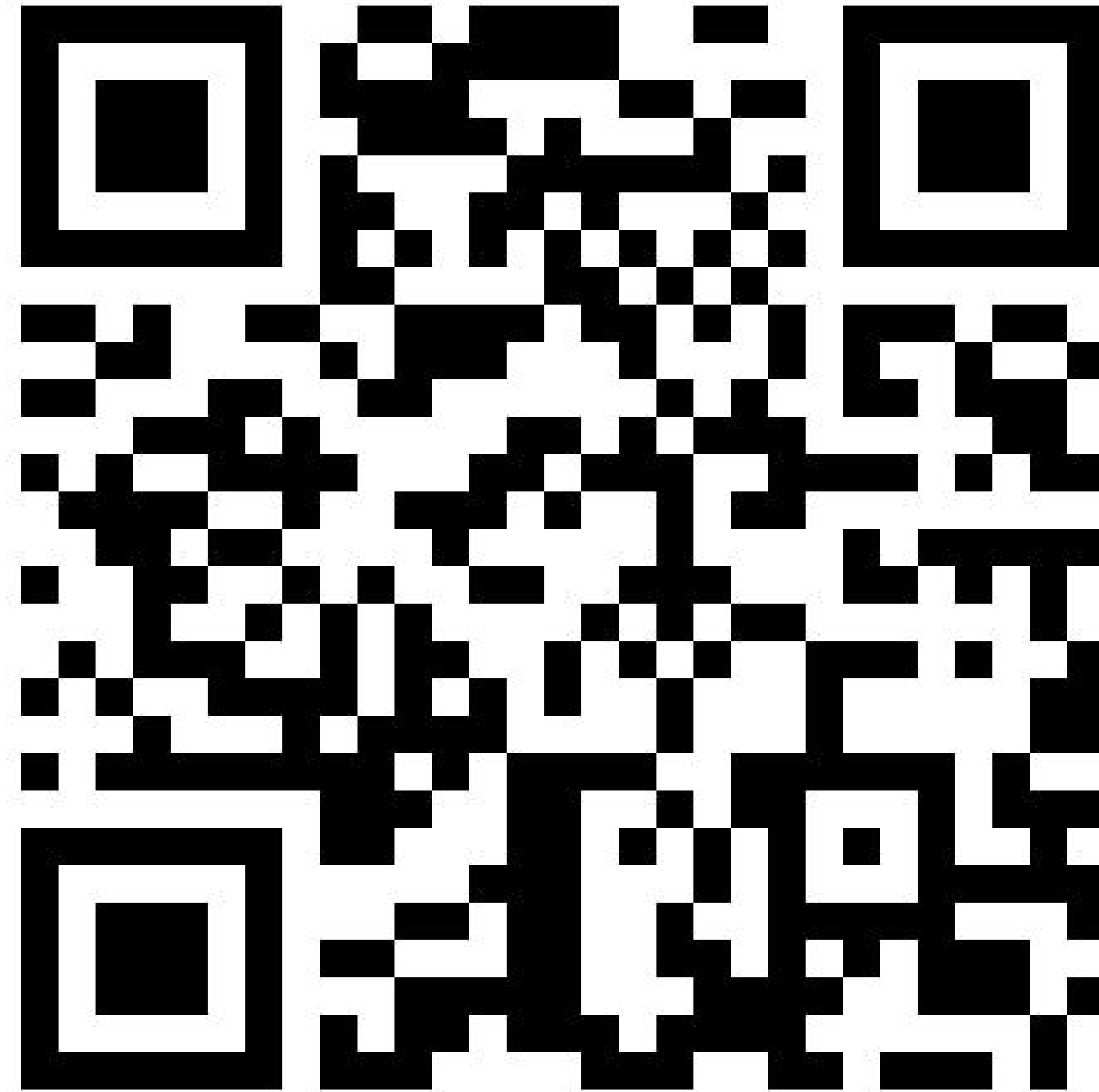
Area size 100%
as a countable rectangle

Exercise G

in-class

| | |
|-----------------|---|
| Class | Superdot Studio / Modular Information Design 5.12.2024 |
| Task | Every dot has an identity |
| Material | A5 paper (portrait format) / 4x color pens / ruler / scanner app |
| Step 1 | Copy the table from the following slide and add the 4th empty column as well. |
| Step 2 | Define a dot identity / symbol for each line in the table. Find inspiration in the elements of the visual dimensions, see slide. |
| Step 3 | Scan (with scanning app) your sketch as .jpg Upload your sketch/table to Adam till Thursday 5.12 / 10pm |
| Step 4 | Fill out the evaluation of the Science Communication class QR Code Link next slide – till Thursday 5.12 / 10pm |

Science Communication Evaluation 5.12
























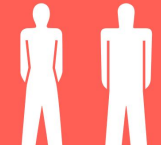
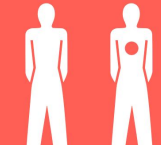






Europe in Numbers

In-class Exercise G

| Euro / no Euro | Position in Europe | Total Population | Dot identity / Symbol |
|----------------|--------------------|------------------|-----------------------|
| Euro | North | S | |
| | | M | |
| | | L | |
| | | XL | |
| | South | S | |
| | | M | |
| | | L | |
| | | XL | |
| no Euro | North | S | |
| | | M | |
| | | L | |
| | | XL | |
| | South | S | |
| | | M | |
| | | L | |
| | | XL | |

Modular Information Design

Visual Dimensions selection

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| <p>Color 3A.1</p>  | <p>Color 3A.4</p>  | <p>Color 3A.5</p>  | <p>Shape 3B.1</p>  | <p>Shape 3B.2</p>  | <p>Shape 3B.3</p>  | <p>Shape 3B.4</p>  | <p>Shape 3B.5</p>  | <p>Shape 3B.6</p>  | <p>Shape 3B.7</p>  |
| Basic Colors | Color gradient | Filled and empty | Geometrical | Organic | Rotation | Direction | Stacking | Blurring | Transformation |
| <p>Shape 3B.8</p>  | <p>Pattern 3D.1</p>  | <p>Pattern 3D.2</p>  | <p>Pattern 3D.3</p>  | <p>Pattern 3D.4</p>  | <p>Pattern 3D.5</p>  | <p>Contour 3E.1</p>  | <p>Contour 3E.2</p>  | <p>Contour 3E.3</p>  | <p>Contour 3E.4</p>  |
| Volume | Texture | Broken lines | Line thickness | Density | Direction | Color | Interruption | Thickness | Shape |
| <p>Contour 3E.5</p>  | <p>Isotype 3F.1</p>  | <p>Isotype 3F.2</p>  | <p>Isotype 3F.3</p>  | <p>Isotype 3F.4</p>  | <p>Isotype 3F.5</p>  | <p>Isotype 3F.6</p>  | <p>Isotype 3F.7</p>  | <p>Isotype 3F.8</p>  | |
| Details | Figurative Shape | Figurative Shape Detail | Direction | Background Shaded | Background / Foreground | Background Areal | Frame or separating line | Background Figurative | |

Europe in Numbers

In-class Exercise G

| Euro / no Euro | Position in Europe | Total Population | Symbol |
|----------------|--------------------|------------------|--------|
| Euro | North | S | |
| | | M | |
| | | L | |
| | | XL | |
| | South | S | |
| | | M | |
| | | L | |
| | | XL | |
| no Euro | North | S | |
| | | M | |
| | | L | |
| | | XL | |
| | South | S | |
| | | M | |
| | | L | |
| | | XL | |

The following table lists the visual design examples shown in the image:

| Label | Code |
|--------------------------|------|
| Color | 3A.1 |
| Color | 3A.4 |
| Color | 3A.5 |
| Shape | 3B.1 |
| Shape | 3B.2 |
| Shape | 3B.3 |
| Basic Colors | |
| Color gradient | |
| Filled and empty | |
| Geometrical | |
| Organic | |
| Rotation | |
| Shape | 3B.4 |
| Shape | 3B.5 |
| Shape | 3B.6 |
| Shape | 3B.8 |
| Pattern | 3D.1 |
| Pattern | 3D.2 |
| Direction | |
| Stacking | |
| Blurring | |
| Volume | |
| Texture | |
| Broken lines | |
| Pattern | 3D.3 |
| Pattern | 3D.4 |
| Pattern | 3D.5 |
| Contour | 3E.1 |
| Contour | 3E.2 |
| Contour | 3E.3 |
| Line thickness | |
| Density | |
| Direction | |
| Color | |
| Interruption | |
| Thickness | |
| Contour | 3E.5 |
| Isotype | 3F.1 |
| Isotype | 3F.2 |
| Isotype | 3F.3 |
| Isotype | 3F.4 |
| Isotype | 3F.5 |
| Details | |
| Figurative Shape | |
| Figurative Shape Detail | |
| Direction | |
| Background Shaded | |
| Background / Foreground | |
| Isotype | 3F.6 |
| Isotype | 3F.7 |
| Isotype | 3F.8 |
| Background Areal | |
| Frame or separating line | |
| Background Figurative | |

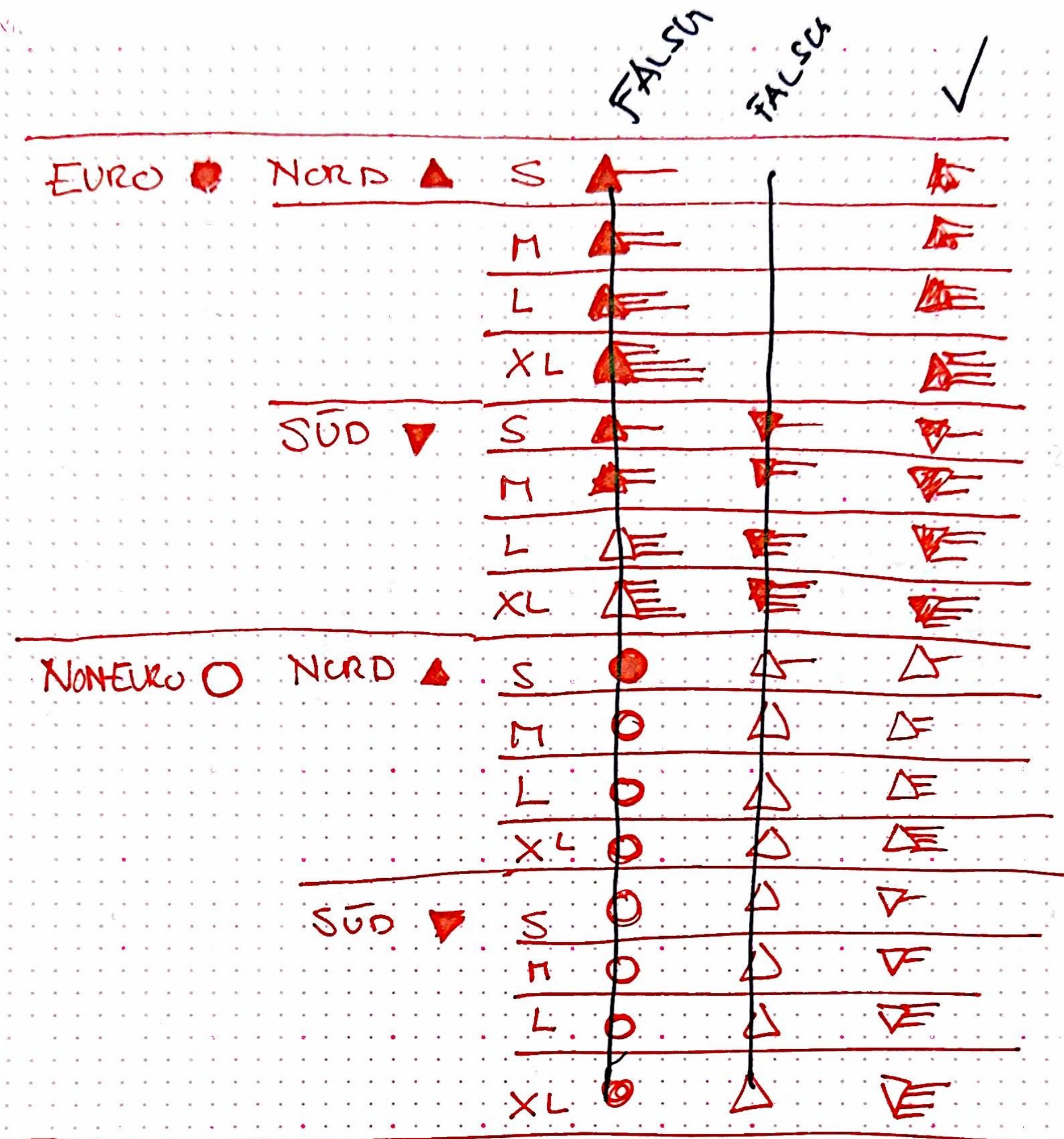
Europe in Numbers

In-class Exercise G

Result example

| Euro / no Euro | Position in Europe | Total Population | Symbol |
|----------------|--------------------|------------------|--------|
| Euro | North | S | |
| | | M | |
| | | L | |
| | | XL | |
| | South | S | |
| | | M | |
| | | L | |
| | | XL | |
| no Euro | North | S | |
| | | M | |
| | | L | |
| | | XL | |
| | South | S | |
| | | M | |
| | | L | |
| | | XL | |

Names / etc.

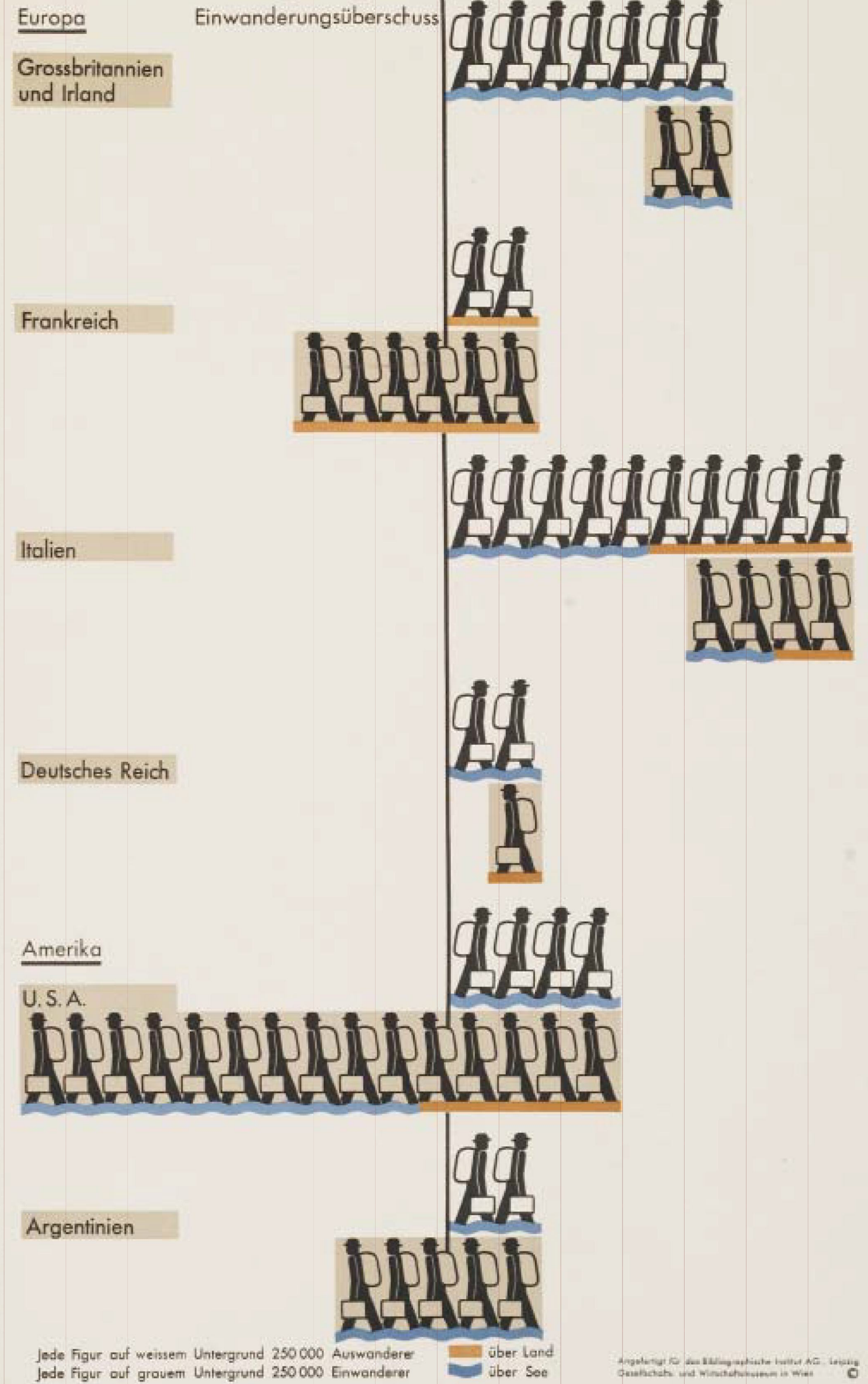


Data → MID Element → Legend

Every dot has an identity

Otto Neurath
Gesellschaft und
Wirtschaft 1930

Wanderbewegung wichtiger Länder 1920-27



Quantity 2A.4

Line length
Countable with line break

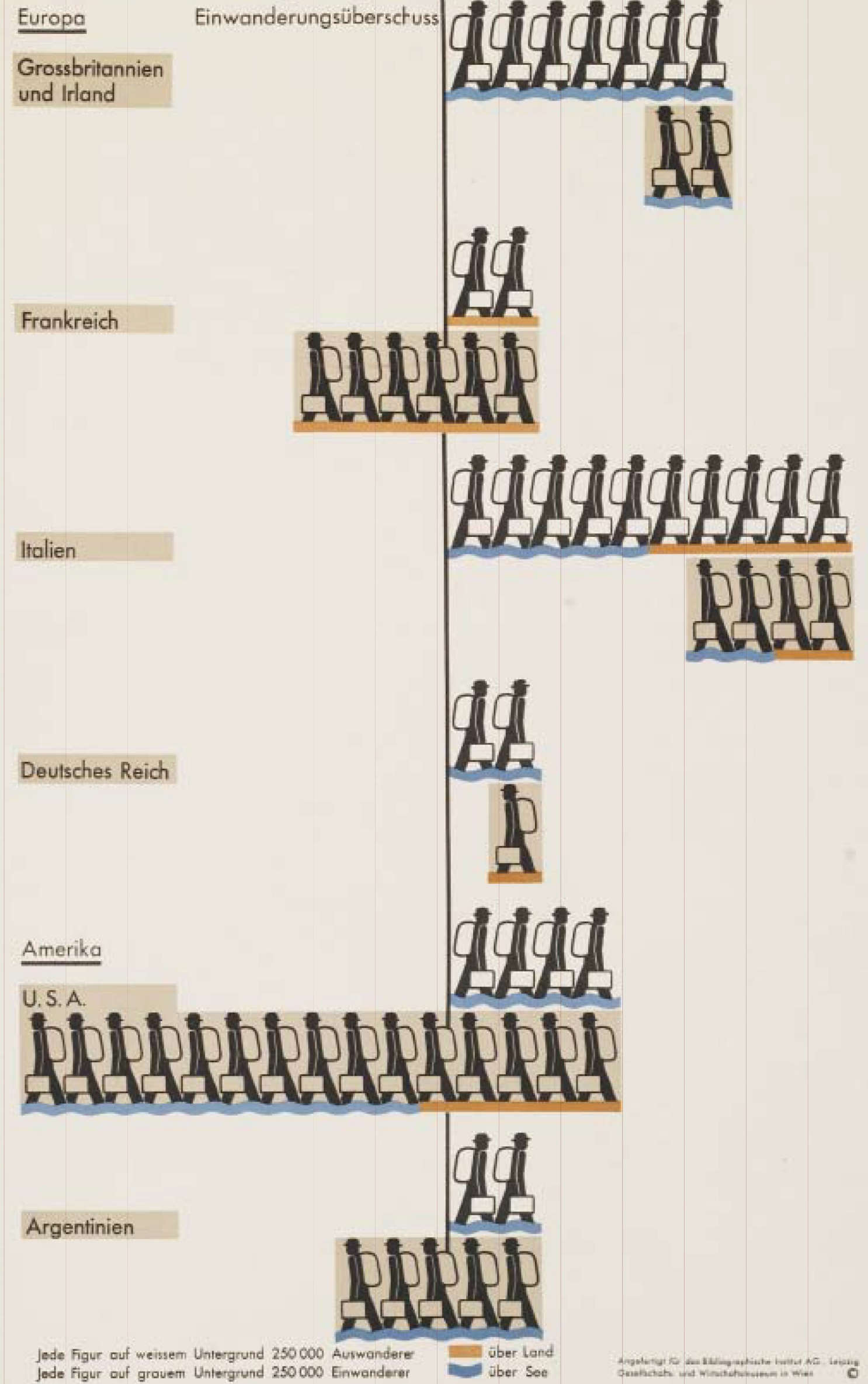
Isotype 3F.3

Direction

Every dot has an identity

Otto Neurath
Gesellschaft und
Wirtschaft 1930

Wanderbewegung wichtiger Länder 1920-27



Quantity 2A.4

Line length
Countable with line break

Grouping 4B.4

Mirroring

Isotype 3F.3

Direction

Isotype 3F.6

Background Areal

Line 3C.1

Color

Line 3C.4

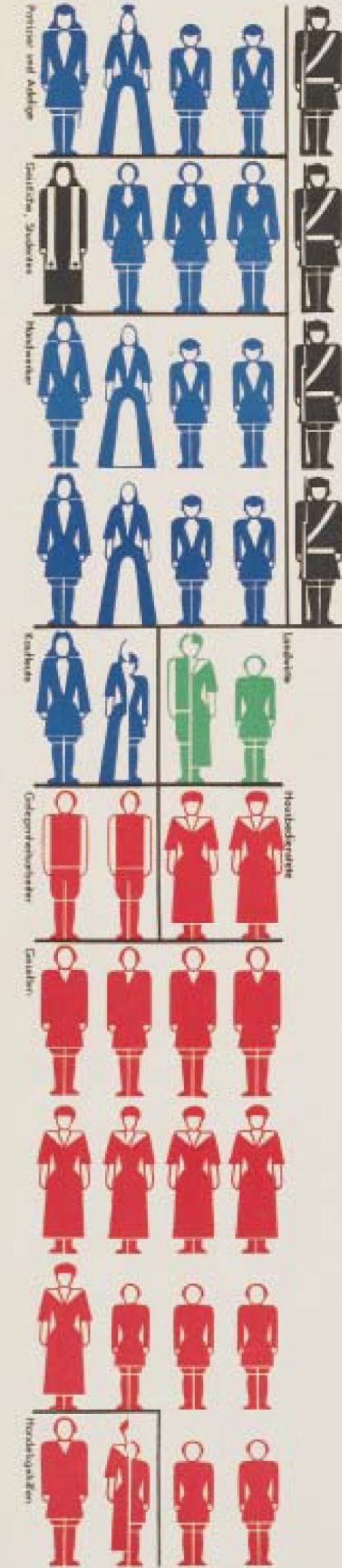
Roughing

Every dot has an identity

Otto Neurath
Gesellschaft und
Wirtschaft 1930

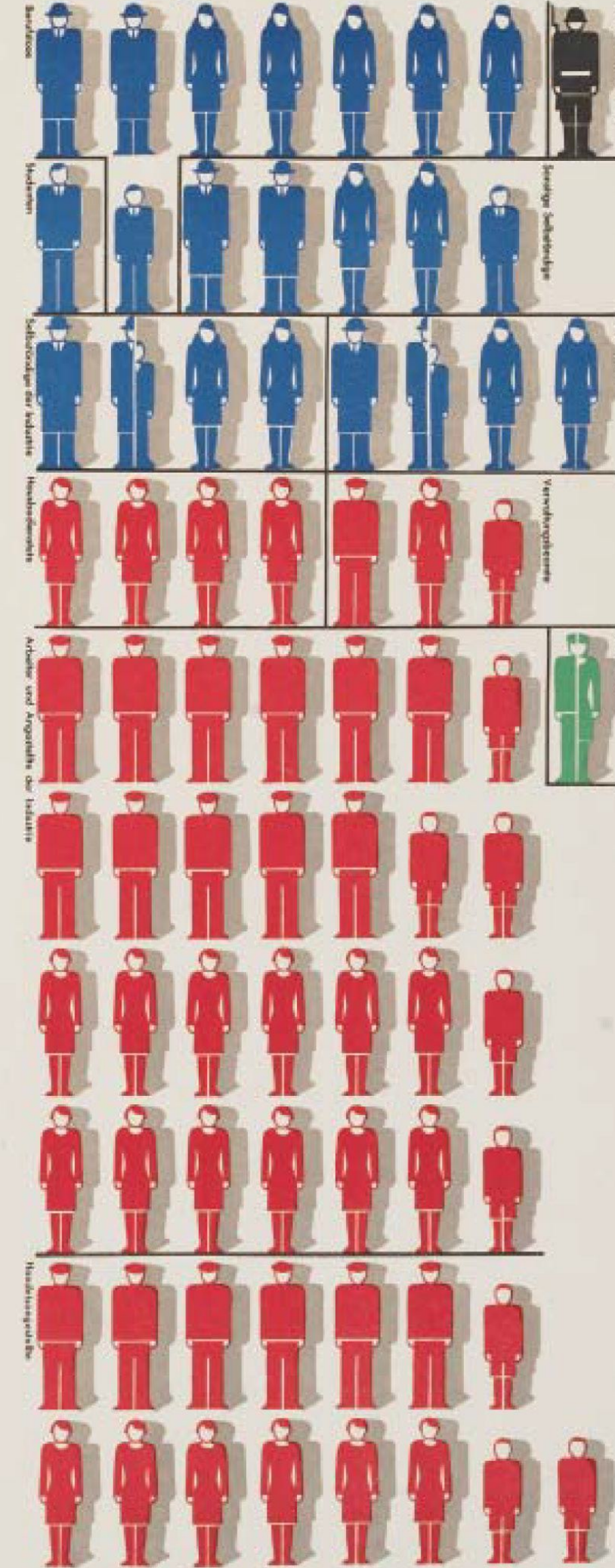
Gesellschaftsgliederung in Wien

um 1700



Jede Figur 2500 Menschen

in der Gegenwart



Jede Figur mit Grau 25 000 Menschen

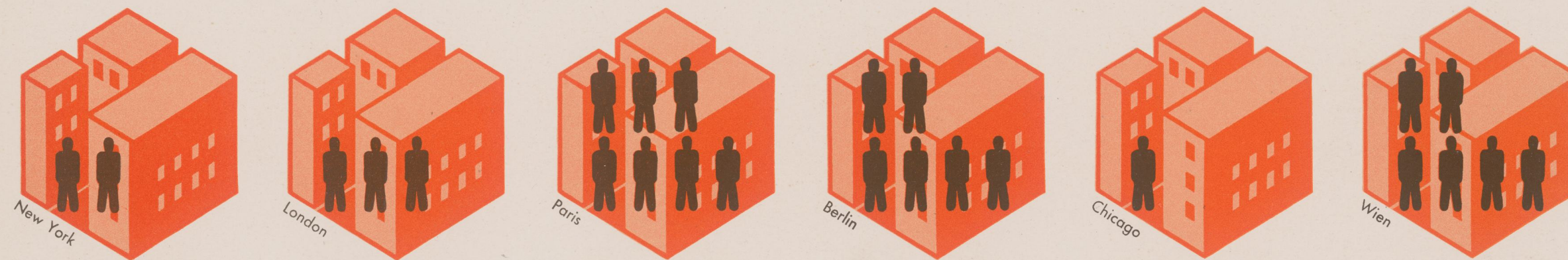
Angefertigt für das Demographische Institut AG., Leipzig
Gesellschafts- und Wirtschaftswissenschaften in Wien

Otto Neurath Gesellschaft und Wirtschaft 1930

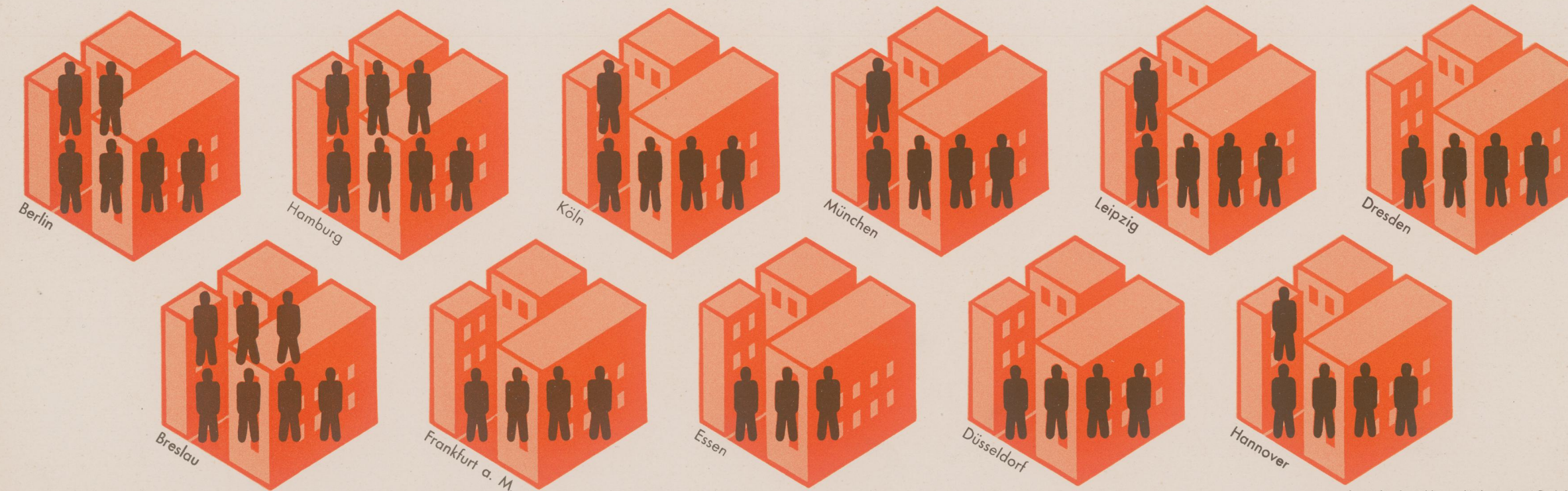
Wohndichte in Großstädten

Bewohner auf 200 m² verbauter Fläche (Gebäudegrundstücke einschl. Strassen, ausschl. grosser Parkanlagen)

Einige Weltstädte



Die deutschen Großstädte über 400 000 Einwohner

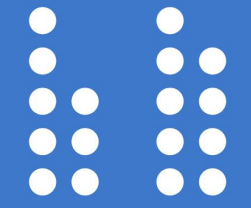


Anordnung der Städte nach ihrer Grösse. Anfang 1929

Angefertigt für das Bibliographische Institut AG., Leipzig
Gesellschafts- und Wirtschaftsmuseum in Wien

Quantity

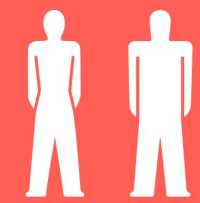
2A.4



Line length
Countable with line break

Isotype

3F.1



Figurative Shape

Otto Neurath Gesellschaft und Wirtschaft 1930

Säuglingsterblichkeit und Einkommen



Jeder Sarg ein Todesfall im 1. Lebensjahr auf 10 Geburten

Jeder Kreis 100 Mark Jahreseinkommen auf einen Einwohner (1929)

Angefertigt für das Bibliographische Institut A.G., Leipzig
Gesellschafts- und Wirtschaftsmuseum in Wien

Gesellschaft und Wirtschaft 92

Gesellschaft und Wirtschaft 72

Quantity 2A.2

Line length
Countable

Isotype 3F.1

Figurative Shape

Color 3A.1

Basic Colors

Sorting 4A.8

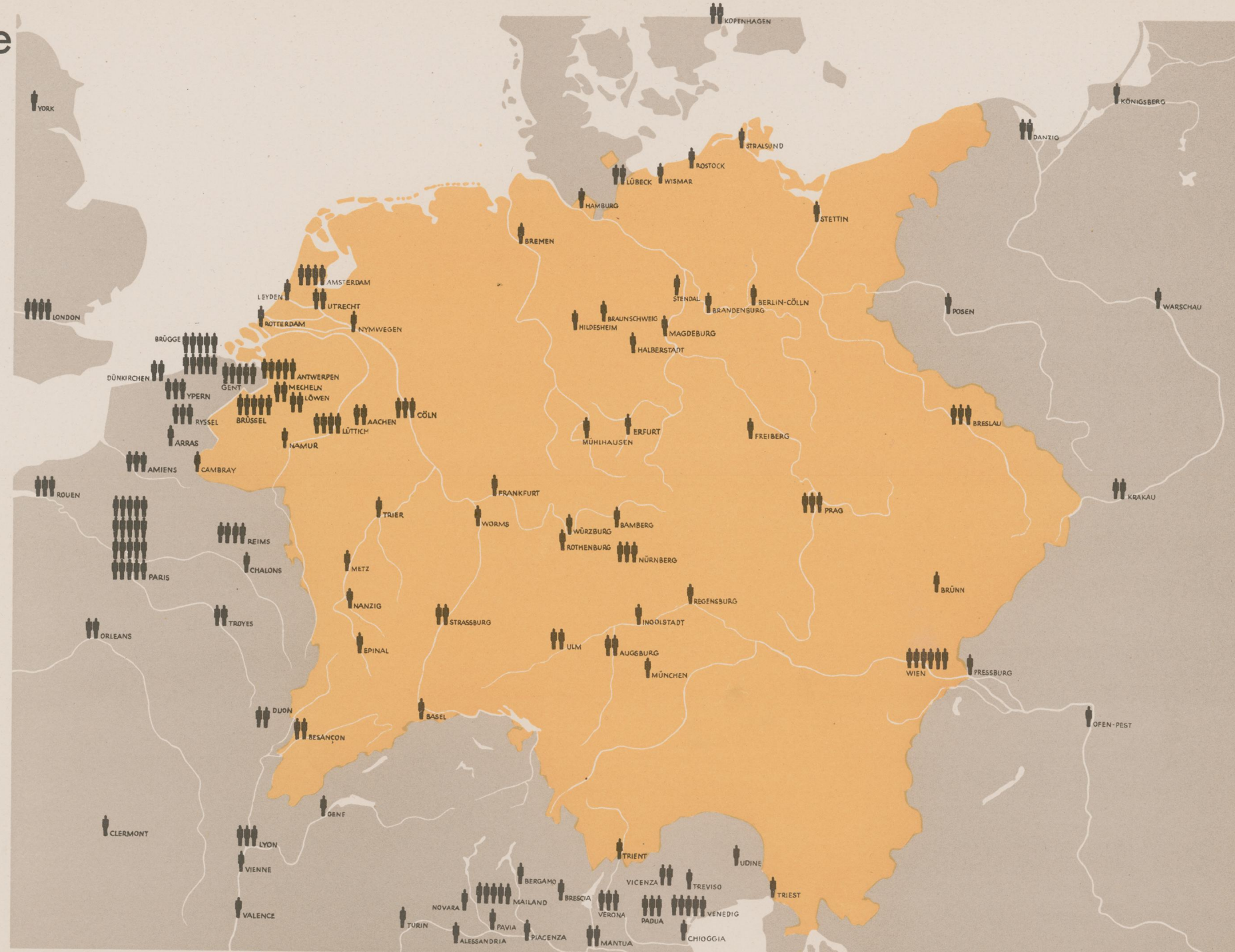
Linear axis
Stacked

Grouping 4B.4

Mirroring

Otto Neurath Gesellschaft und Wirtschaft 1930

Deutsche Städte
im
15. Jahrhundert



Jede Figur 10 000 Einwohner

Grenzen Deutschlands im Jahre 1477
(ohne Gebiet des Deutschen Ritterordens)

Angefertigt für das Bibliographische Institut AG, Leipzig
Gesellschafts- und Wirtschaftsmuseum in Wien

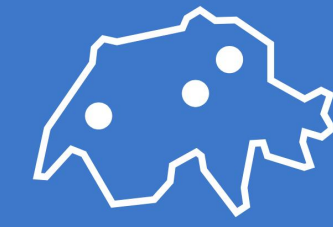
Gesellschaft und Wirtschaft 15

Gesellschaft und Wirtschaft 92

Gesellschaft und Wirtschaft 72

Position

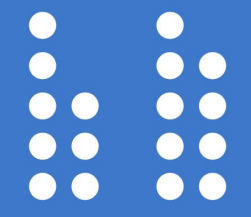
2B.5



Points in space
Geographical coordinates

Quantity

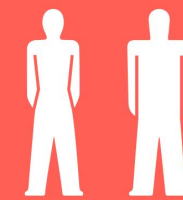
2A.4



Line length
Countable with line break

Isotype

3F.1

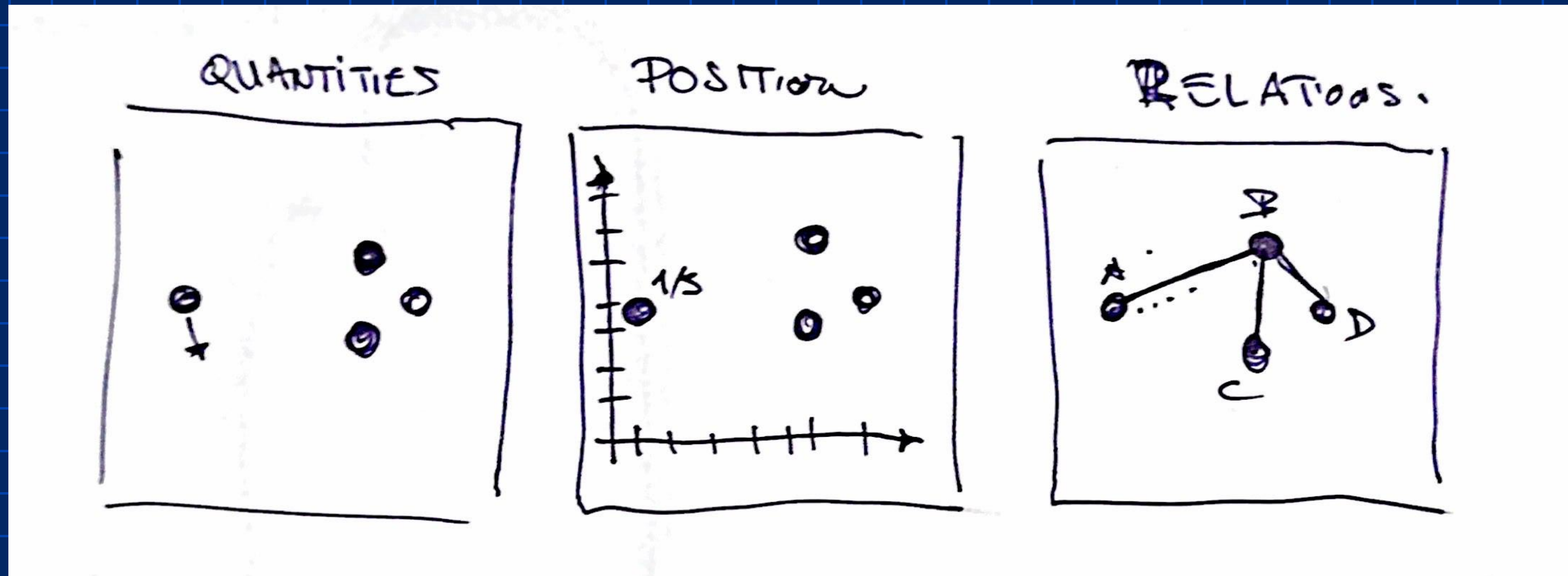
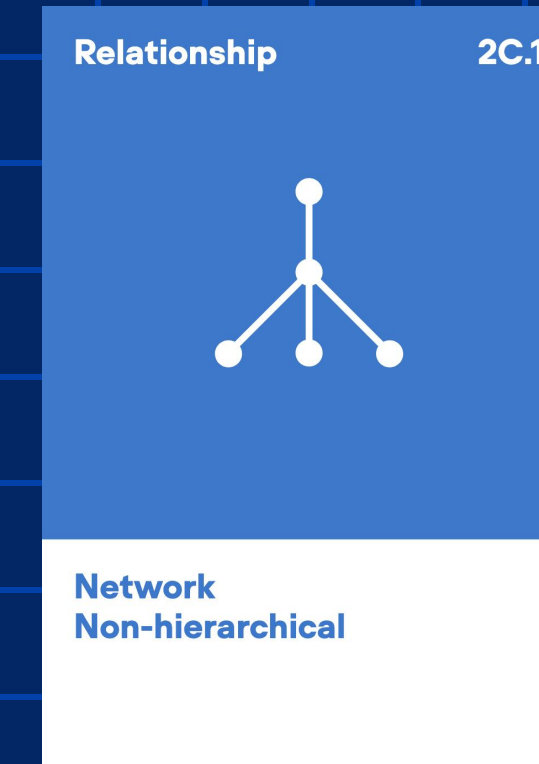
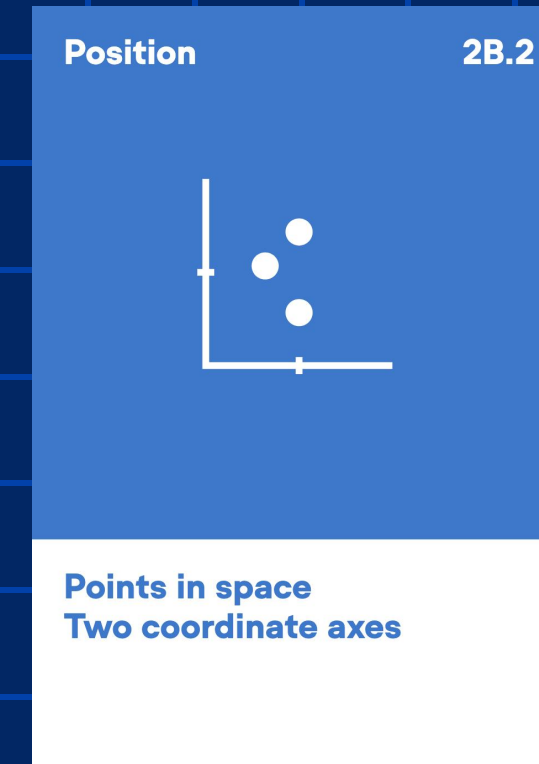
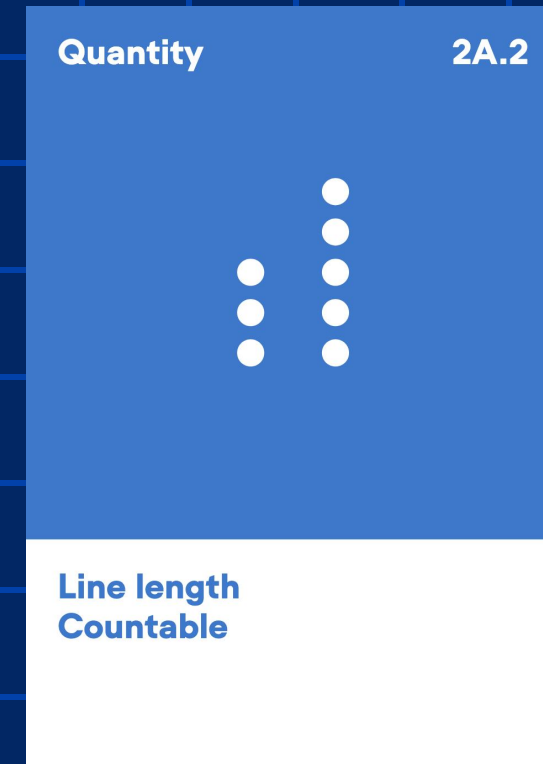


Figurative Shape

Modular Information Design

Diagrammatic Dimensions

Quantity – Position – Relationship



Modular Information Design

Diagrammatic Dimensions – Position

Position

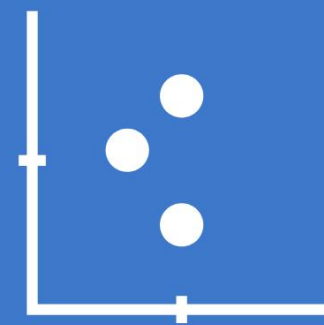
2B.1



Points in space
One coordinate axis

Position

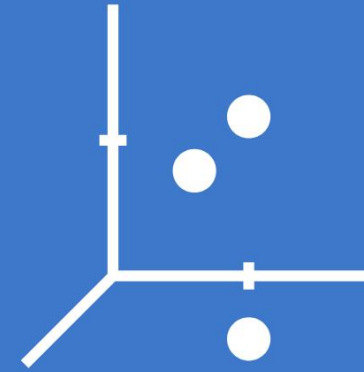
2B.2



Points in space
Two coordinate axes

Position

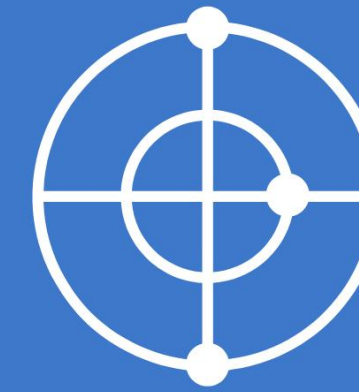
2B.3



Points in space
Three coordinate axes

Position

2B.4



Points in space
Polar axes

Position

2B.5



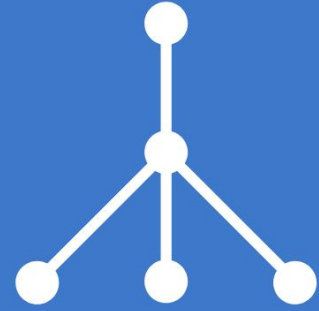
Points in space
Geographical coordinates

Modular Information Design

Diagrammatic Dimensions – Relationship

Relationship

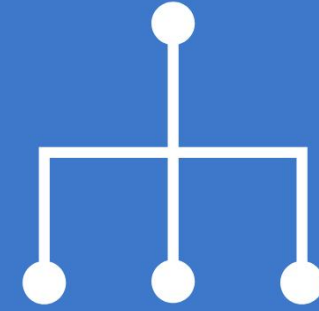
2C.1



Network
Non-hierarchical

Relationship

2C.2



Network
Hierarchical

Relationship

2C.3



Network
Linear

Relationship

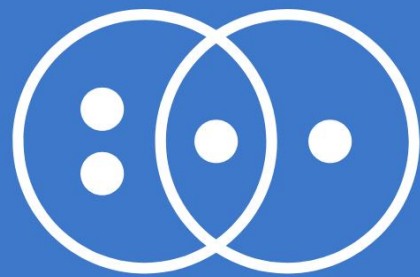
2C.4



Network
Circular

Relationship

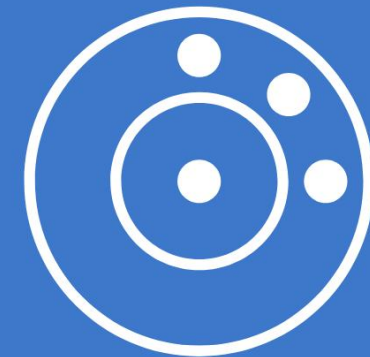
2C.5



Nesting
Intersection sets

Relationship

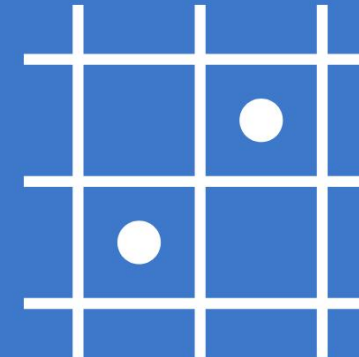
2C.6



Nesting
Stacking

Relationship

2C.7



Nesting
Matrix

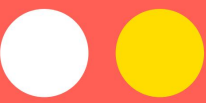



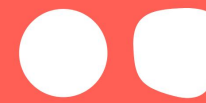
















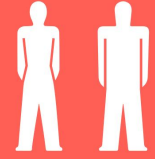
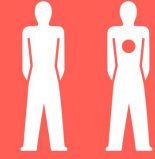


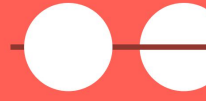



Exercise G homework

| | |
|-----------------|---|
| Class | Superdot Studio / Modular Information Design 5.12.2024 |
| Task | Relationship Visualization On Data And Design talk |
| Material | A5 grid paper (portrait format) / 4x color pens / ruler / scanner app |
| Step 1 | Select one of the talks you already worked on in exercise F <u>On Data And Design Youtube channel</u> |
| Step 2 | Visualize the relationships in the selected On Data And Design talk with Modular Information Design Elements Use selected elements: Diagrammatic Dimensions – Relationship (blue) Use selected elements: Visual Dimensions – For dots (red) Use selected elements: Visual Dimensions – For lines (red) |
| Step 3 | Legend: Add number of the used elements or draw the used elements |
| Step 4 | Scan (with scanning app) your sketch as .jpg Upload your sketch/table to Adam till Wednesday 11.12 / 10am |

Modular Information Design

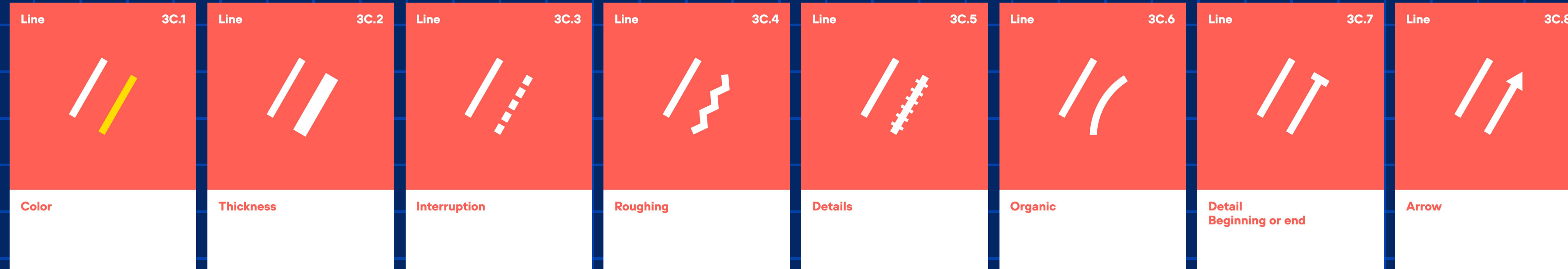
Visual Dimensions selection

For dots

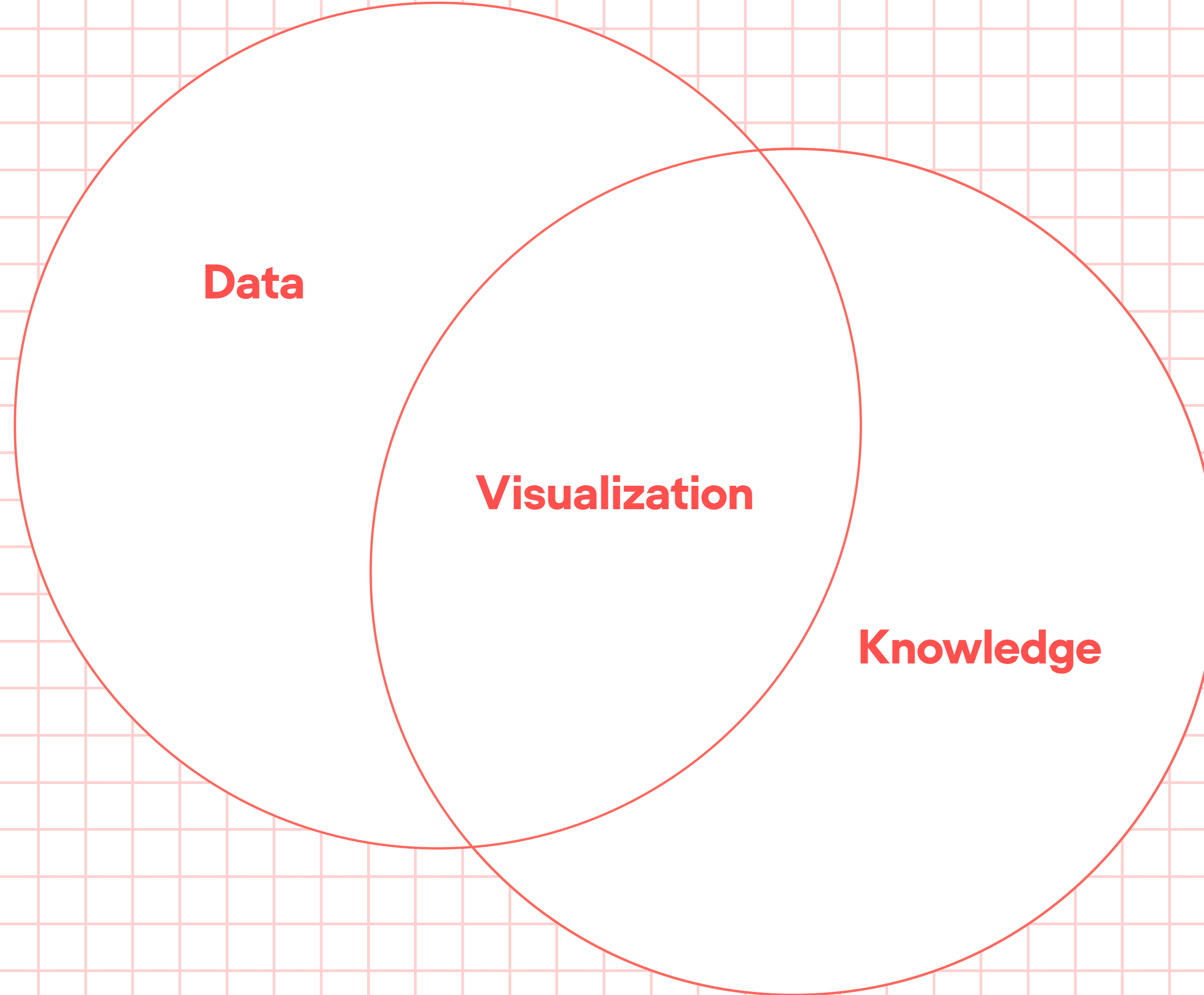
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Color 3A.1  | Color 3A.4  | Color 3A.5  | Shape 3B.1  | Shape 3B.2  | Shape 3B.3  | Shape 3B.4  | Shape 3B.5  | Shape 3B.6  | Shape 3B.7  |
| Basic Colors | Color gradient | Filled and empty | Geometrical | Organic | Rotation | Direction | Stacking | Blurring | Transformation |
| Shape 3B.8  | Pattern 3D.1  | Pattern 3D.2  | Pattern 3D.3  | Pattern 3D.4  | Pattern 3D.5  | Contour 3E.1  | Contour 3E.2  | Contour 3E.3  | Contour 3E.4  |
| Volume | Texture | Broken lines | Line thickness | Density | Direction | Color | Interruption | Thickness | Shape |
| Contour 3E.5  | Isotype 3F.1  | Isotype 3F.2  | Isotype 3F.3  | Isotype 3F.4  | Isotype 3F.5  | Isotype 3F.6  | Isotype 3F.7  | Isotype 3F.8  | |
| Details | Figurative Shape | Figurative Shape Detail | Direction | Background Shaded | Background / Foreground | Background Areal | Frame or separating line | Background Figurative | |

Modular Information Design

Visual Dimensions selection: For lines



Text and numbers

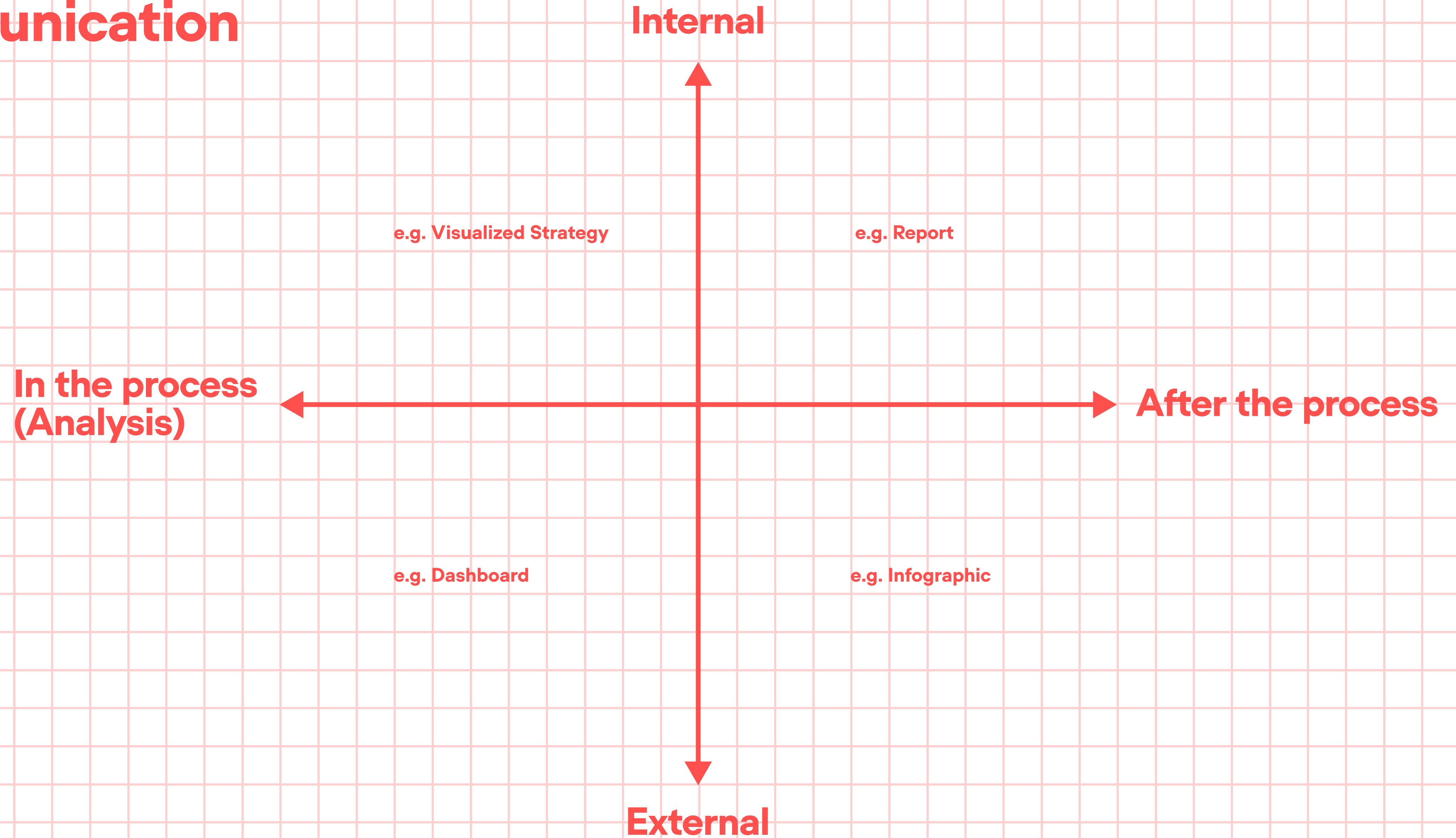


Knowledge Visualization

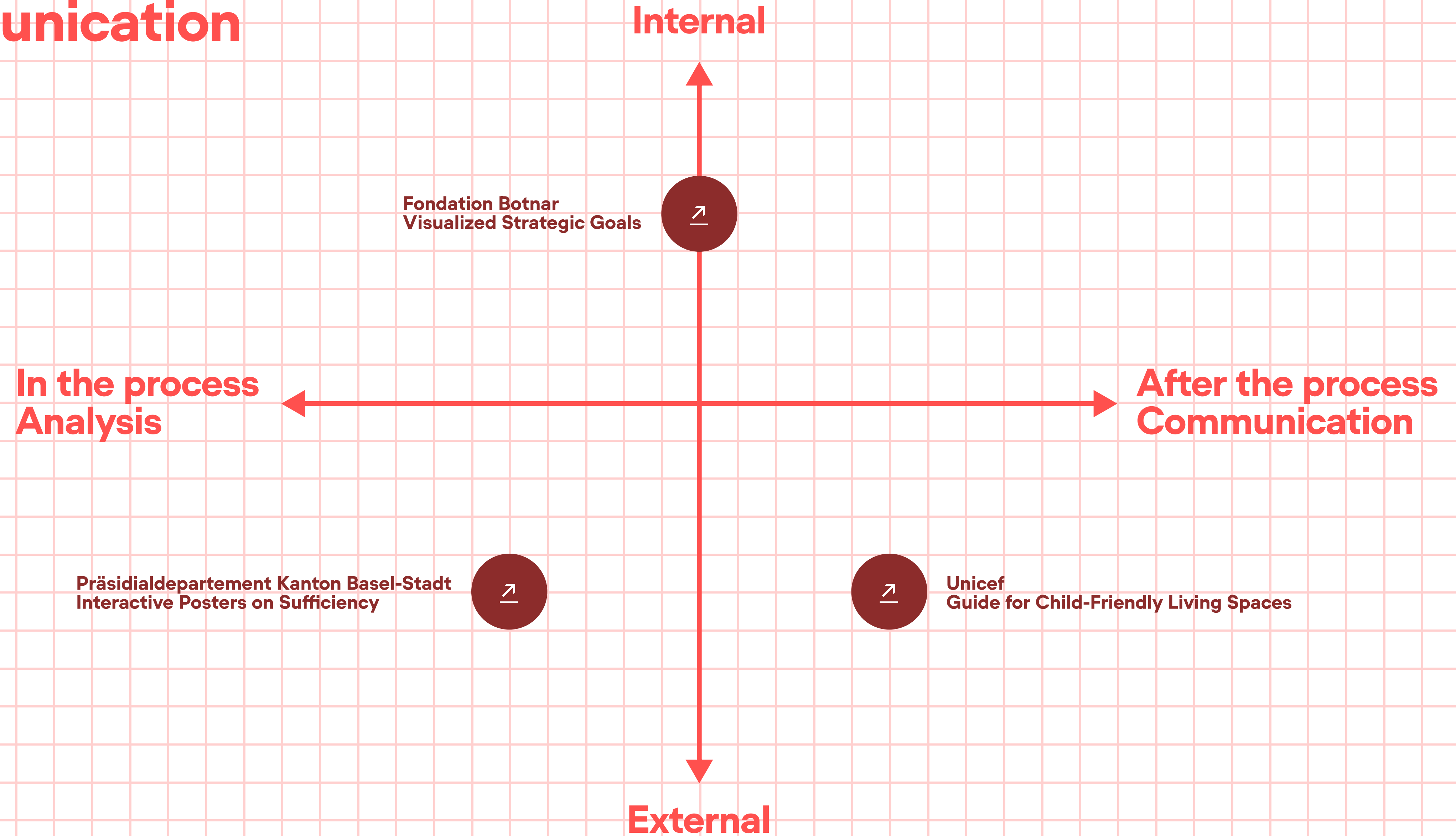


Knowledge

Visualization for Communication

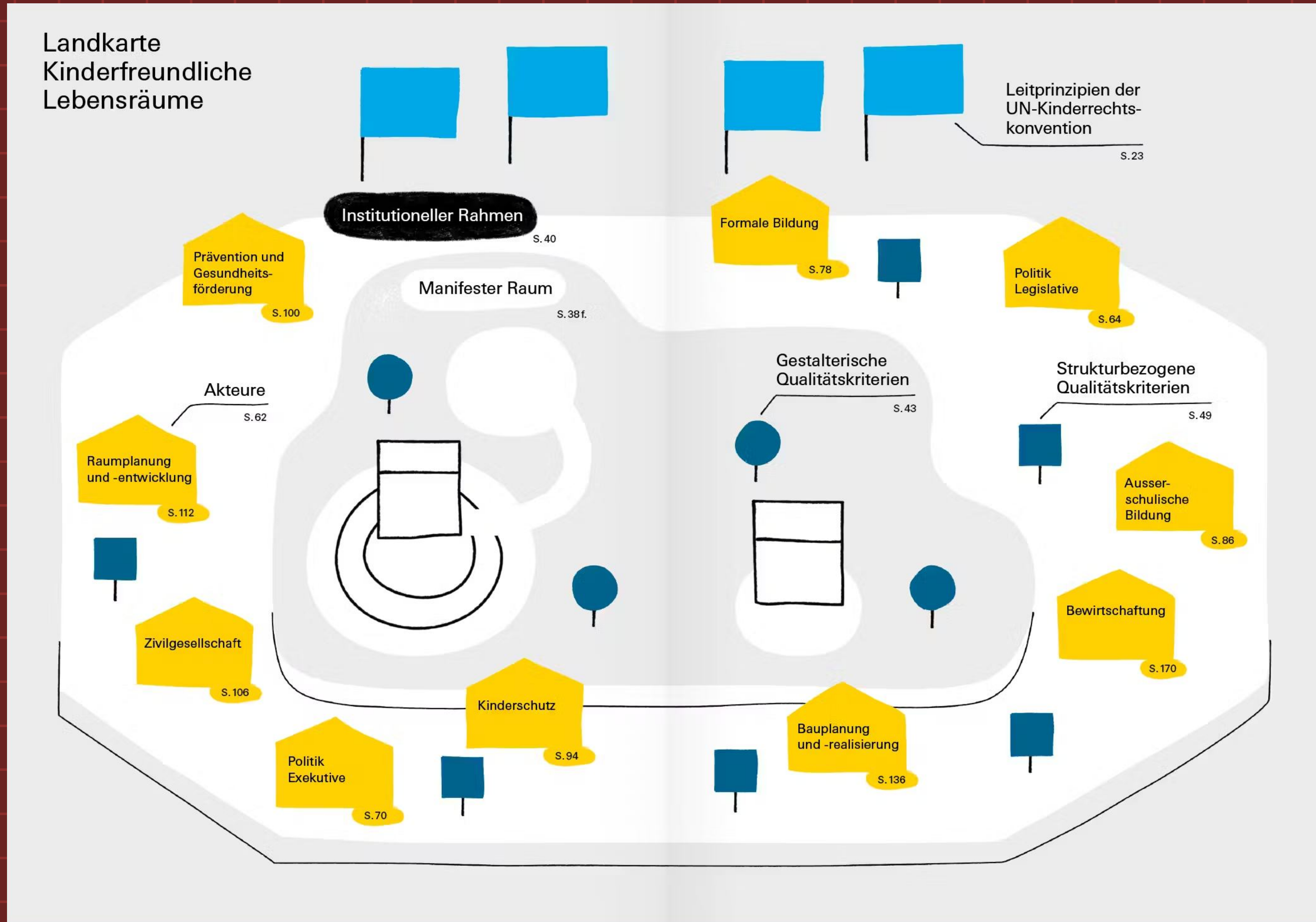


Visualization for Communication





Unicef Guide for Child-Friendly Living Spaces



Relationship 2C.6

Nesting Stacking

Color 3A.1

Basic Colors

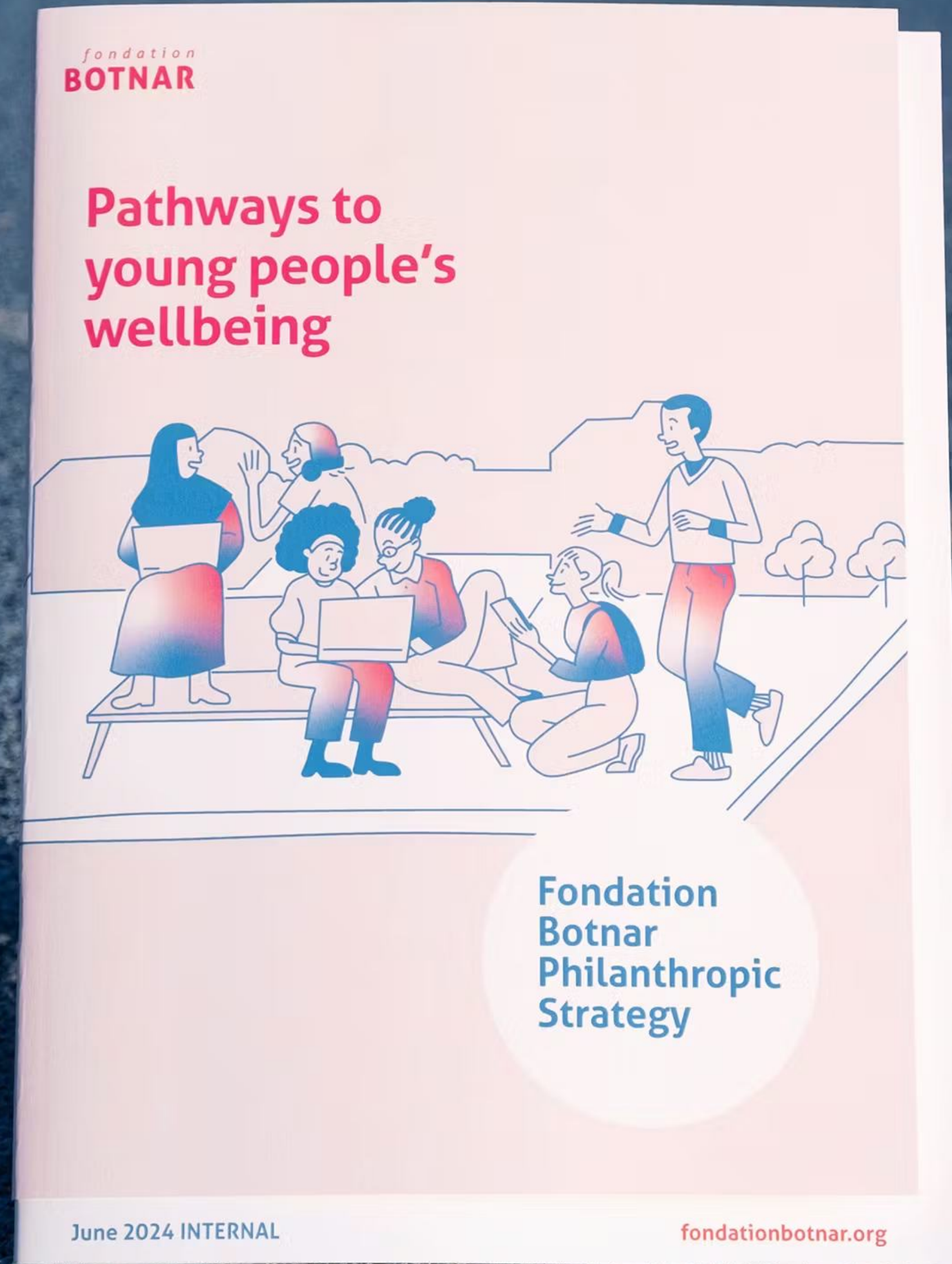
Shape 3B.1

Geometrical

Shape 3B.8

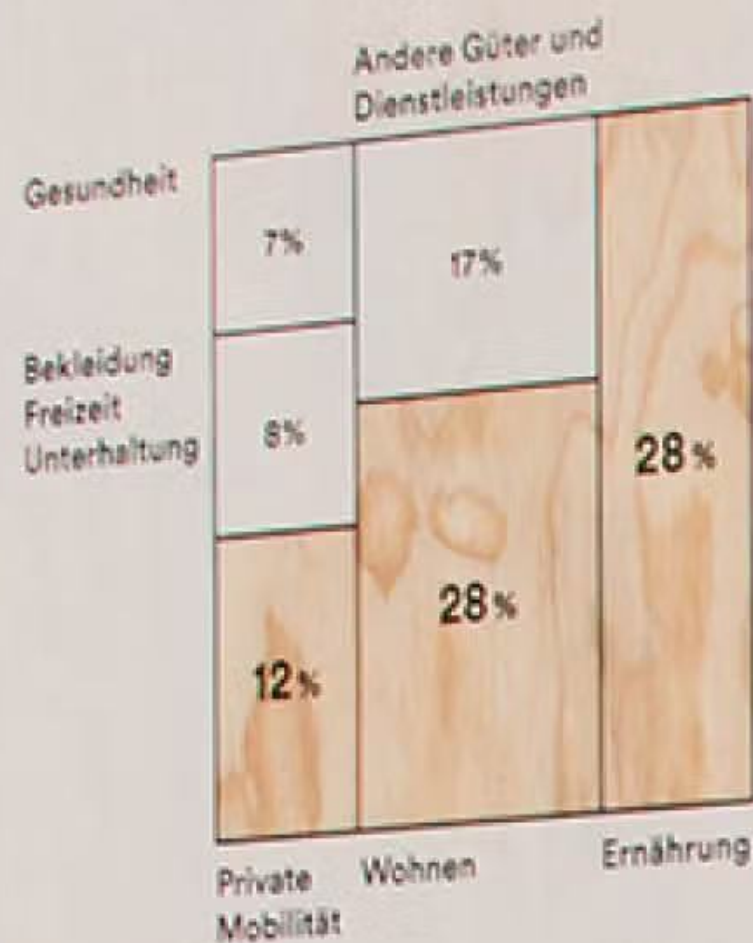
Volume

Verstärkung



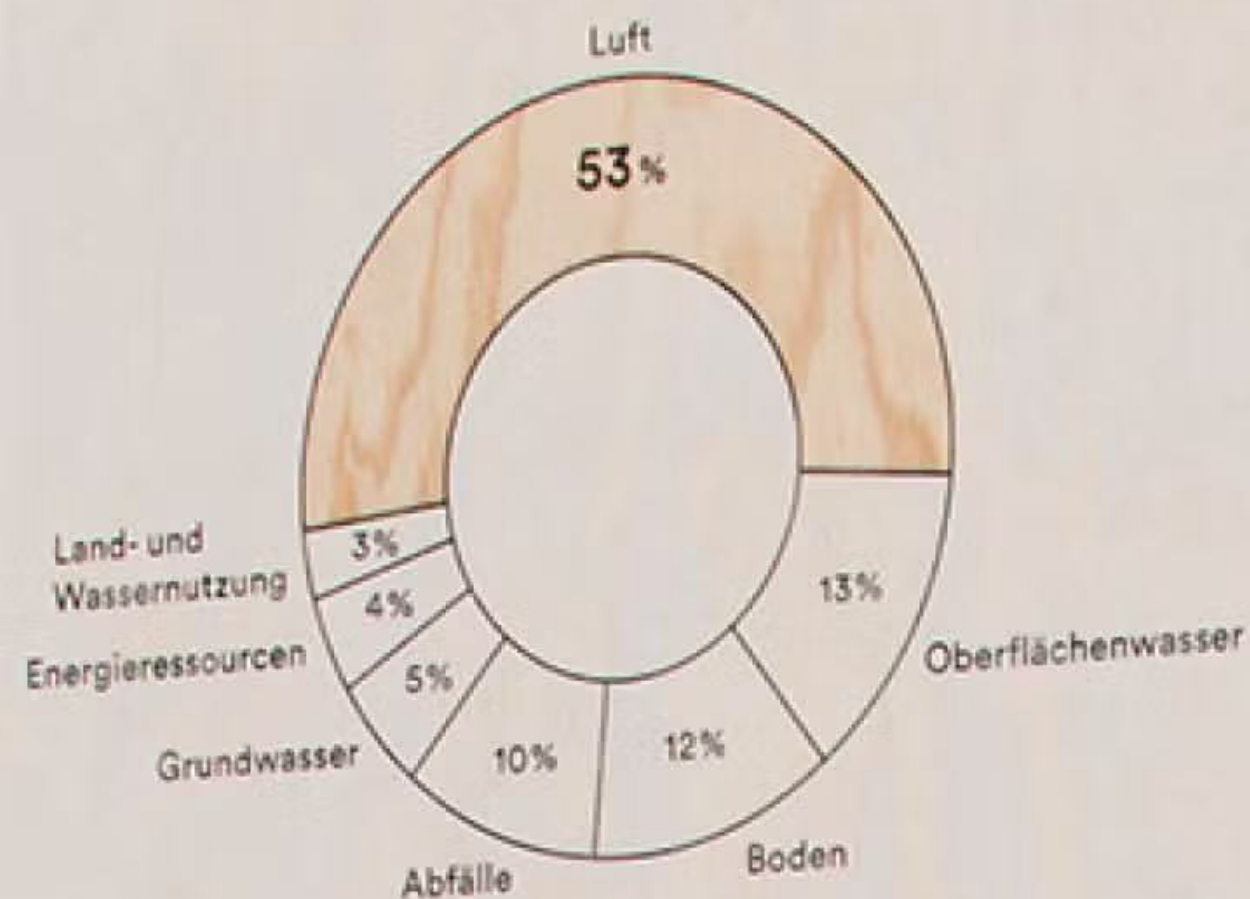


UMWELTBELASTUNG / BEREICHE



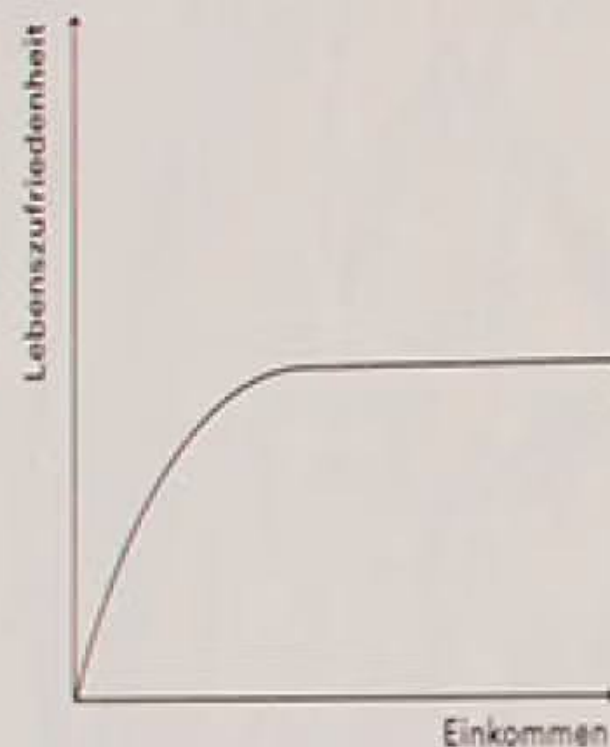
Quelle: Bundesamt für Umwelt, 2011

UMWELTBELASTUNG / ART



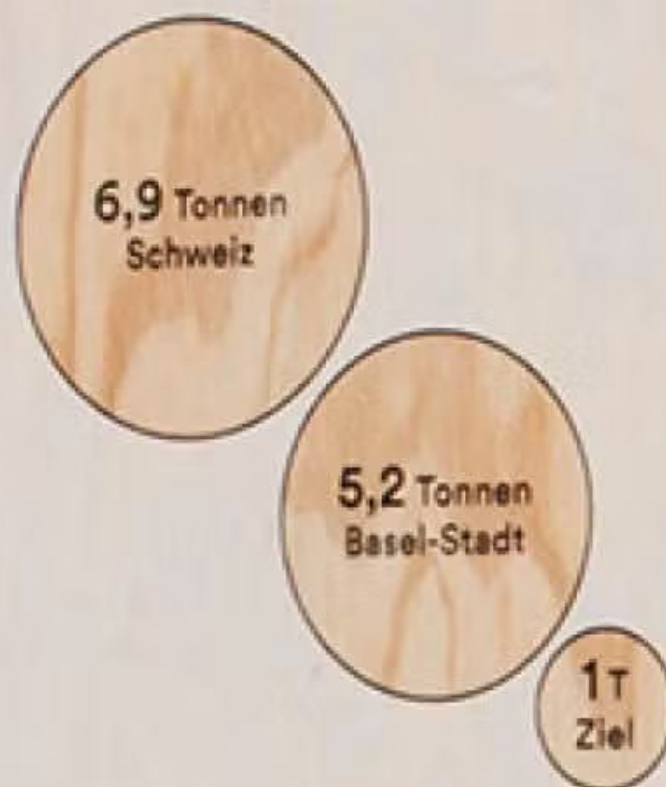
Quelle: EBC-services, 2011

EINKOMMEN / LEBENSZUFRIEDENHEIT



Die Glücksforschung zeigt:

UMWELTBELASTUNG / CO₂ PRO PERSON / JAHR



20 483 KM PRO EINWOHNER/-IN DER SCHWEIZ SIND WIR JÄHRLICH UNTERWEGS.



AUTOBESITZ

Basel-Stadt: 45% der Haushalte
Schweiz: 79% der Haushalte

WIE SIND SIE AM LIEBSTEN TÄGLICH UNTERWEGS?

