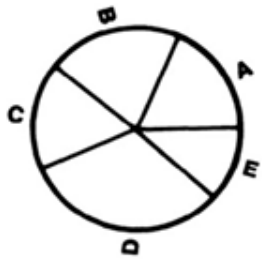


11. Redesigning charts

#3

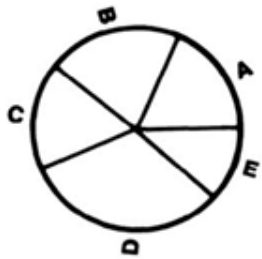
Redesigning old graphical forms

Rethinking **pie charts**



Pie chart

Rethinking **pie charts**



Pie chart

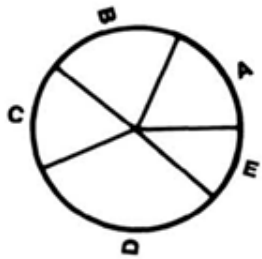


Angle



Direction

Rethinking **pie charts**



Pie chart

#3

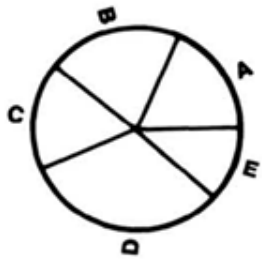


Angle



Direction

Rethinking **pie charts**



Pie chart

#3



Angle



Direction

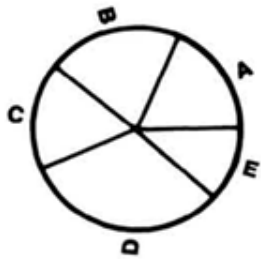
#4



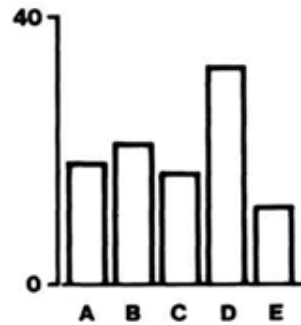
Area

CLEVELAND & MCGILL (1984). FIG 3

Rethinking **pie charts**



Pie chart



Bar chart

#3



Angle



Direction

#4

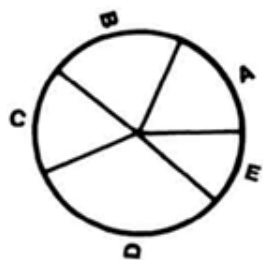


Area

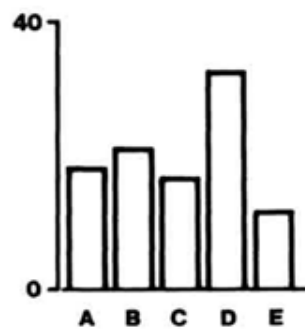
CLEVELAND & MCGILL (1984). FIG 3

CLEVELAND & MCGILL (1984). FIG 3

Rethinking **pie charts**



Pie chart



Bar chart

#3



Angle



Direction

#3



Length

#4

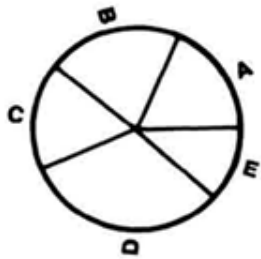


Area

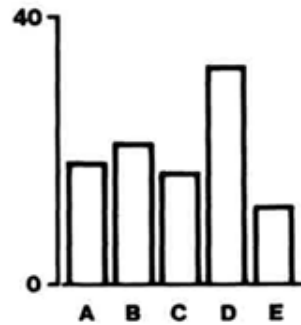
CLEVELAND & MCGILL (1984). FIG 3

CLEVELAND & MCGILL (1984). FIG 3

Rethinking **pie charts**



Pie chart



Bar chart

#3



Angle



Direction

#3



Length

#4



Area

#1

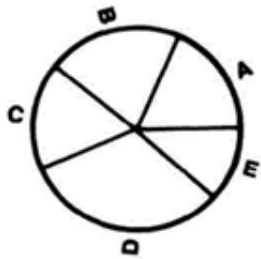


Position in
common scale

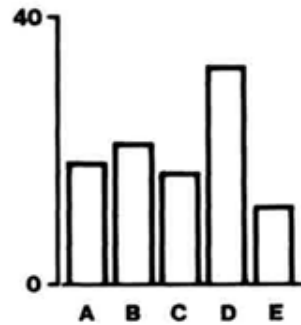
CLEVELAND & MCGILL (1984). FIG 3

CLEVELAND & MCGILL (1984). FIG 3

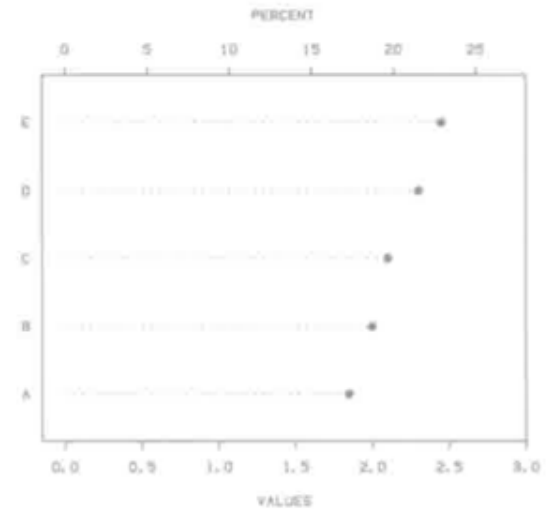
Rethinking pie charts



Pie chart



Bar chart



Dot chart

#3



Angle



Direction

#3



Length

#4



Area

#1



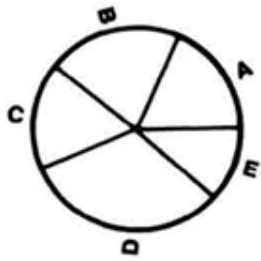
Position in
common scale

CLEVELAND & MCGILL (1984). FIG 3

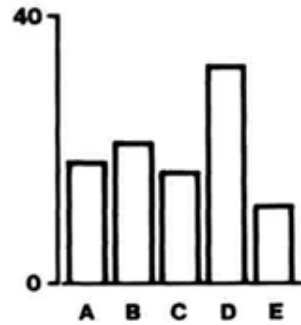
CLEVELAND & MCGILL (1984). FIG 3

CLEVELAND & MCGILL (1984). FIG 23

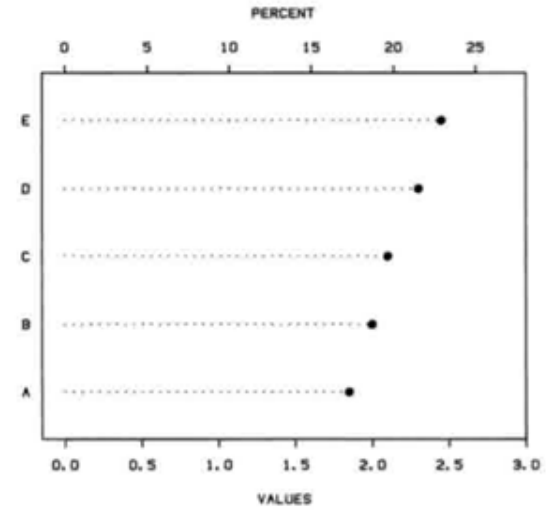
Rethinking pie charts



Pie chart



Bar chart



Dot chart

#3



Angle



Direction

#3



Length

#4



Area

#1



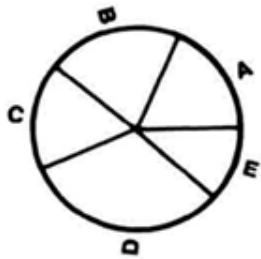
Position in
common scale

CLEVELAND & MCGILL (1984). FIG 3

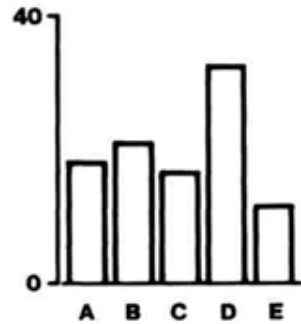
CLEVELAND & MCGILL (1984). FIG 3

CLEVELAND & MCGILL (1984). FIG 23

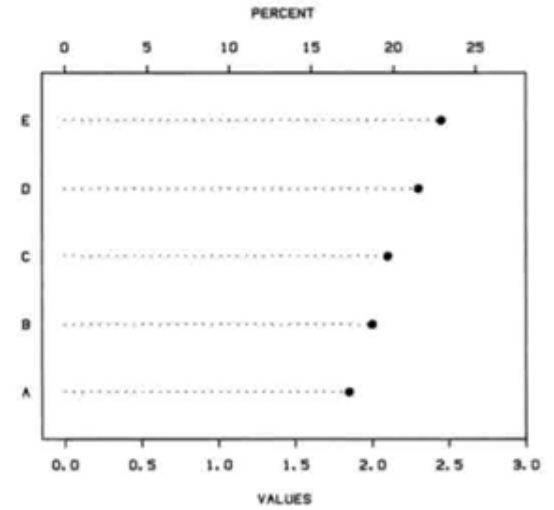
Rethinking pie charts



Pie chart



Bar chart



Dot chart

#3



Angle



Direction

#3



Length

#4



Area

#1



Position in
common scale

#1



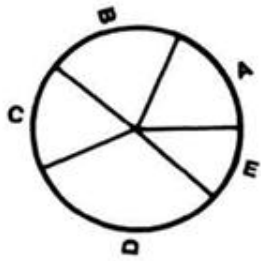
Position in
common scale

CLEVELAND & MCGILL (1984). FIG 3

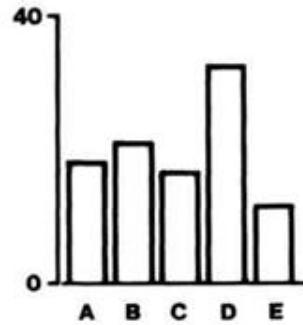
CLEVELAND & MCGILL (1984). FIG 3

CLEVELAND & MCGILL (1984). FIG 23

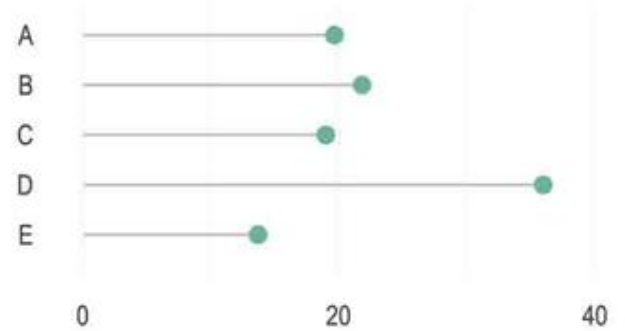
Rethinking pie charts



Pie chart



Bar chart



Lollipop chart

#3



Angle



Direction

#3



Length

#4



Area

#1



Position in
common scale

#1

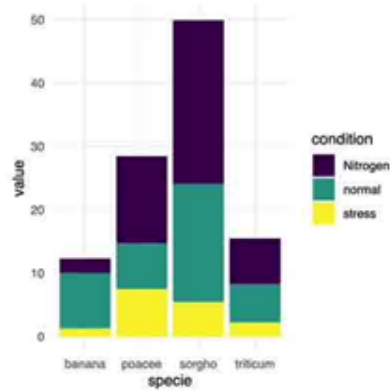


Position in
common scale

CLEVELAND & MCGILL (1984). FIG 3

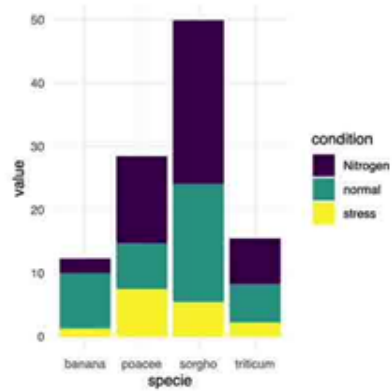
CLEVELAND & MCGILL (1984). FIG 3

Rethinking **stacked bar charts**



Stacked bar chart

Rethinking **stacked bar charts**



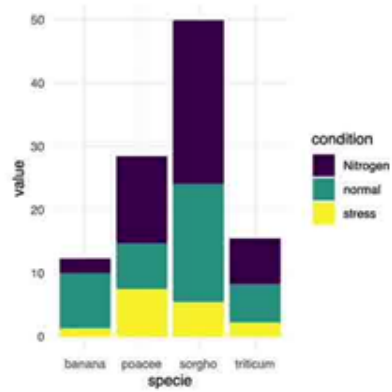
Stacked bar chart

#3



Length

Rethinking **stacked bar charts**



Stacked bar chart

#3



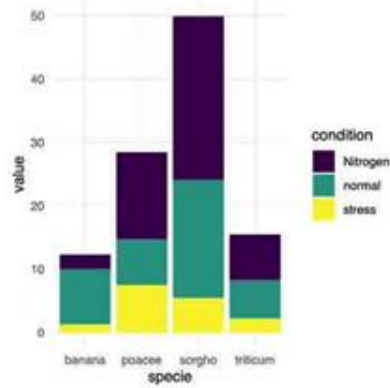
Length

#2

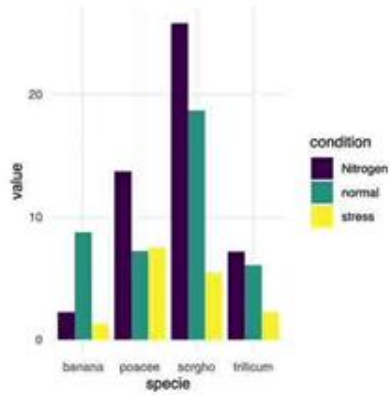


Position in non aligned scales

Rethinking **stacked bar charts**



Stacked bar chart



Grouped bar chart

#3



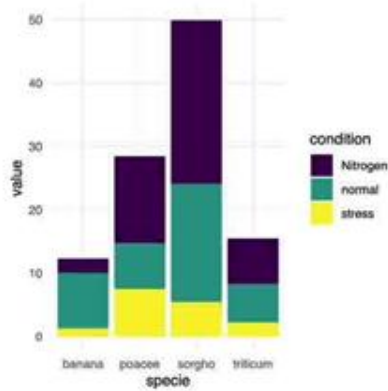
Length

#2



Position in non aligned scales

Rethinking **stacked bar charts**



Stacked bar chart

#3

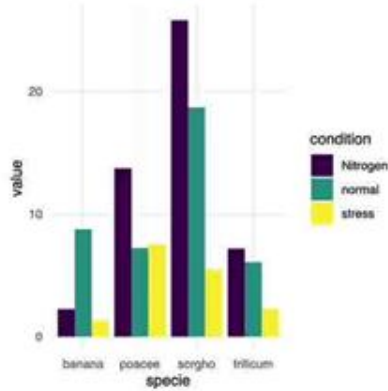


Length

#2



Position in non aligned scales



Grouped bar chart

#3



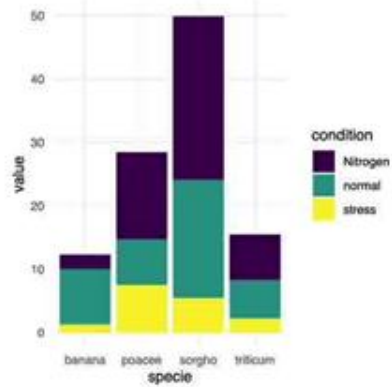
Length

#1

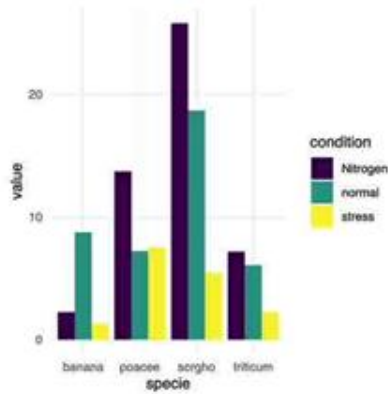


Position in common scale

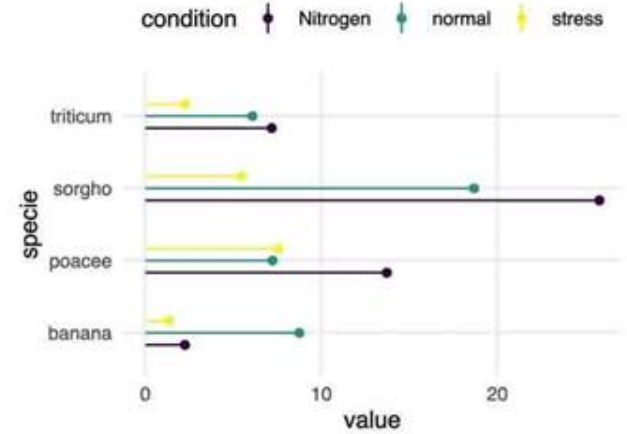
Rethinking **stacked bar charts**



Stacked bar chart



Grouped bar chart



Grouped lollipop

#3



Length

#2



Position in non aligned scales

#3



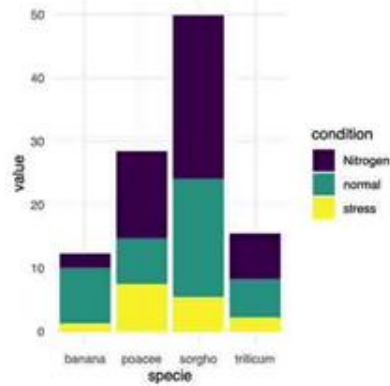
Length

#1



Position in common scale

Rethinking **stacked bar charts**



Stacked bar chart

#3

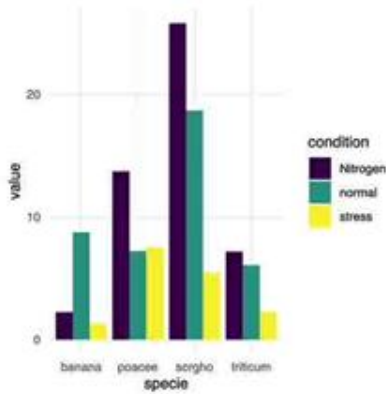


Length

#2



Position in non aligned scales



Grouped bar chart

#3

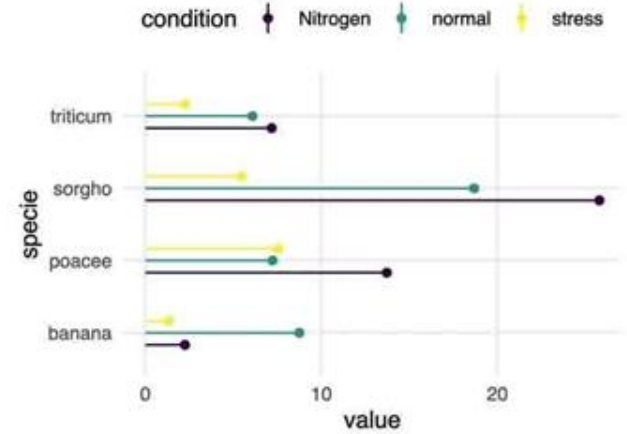


Length

#1



Position in common scale



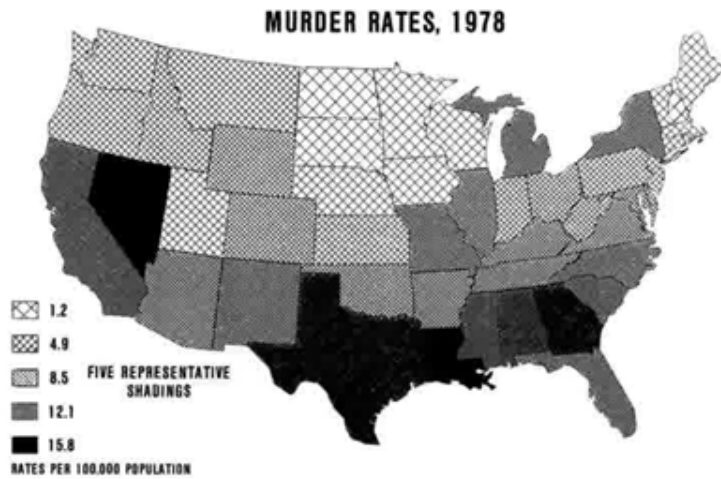
Grouped lollipop

#1



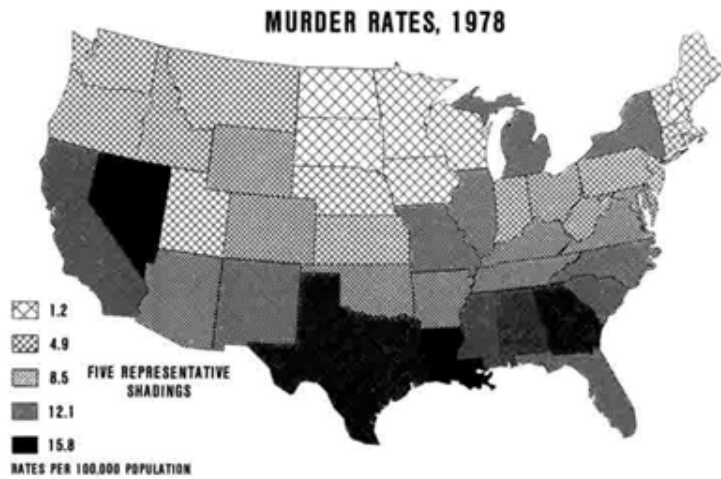
Position in common scale

Rethinking **shaded maps**



Shaded map

Rethinking **shaded maps**



Shaded map

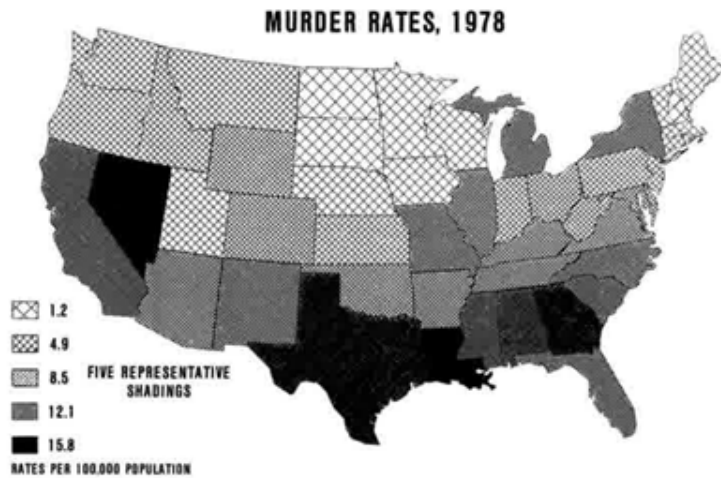
#6



Shading

CLEVELAND & MCGILL (1984). FIG 5

Rethinking **shaded maps**



Shaded map

#6



Shading

CLEVELAND & MCGILL (1984). FIG 5

0 - 4 - 8 - 12 - 16

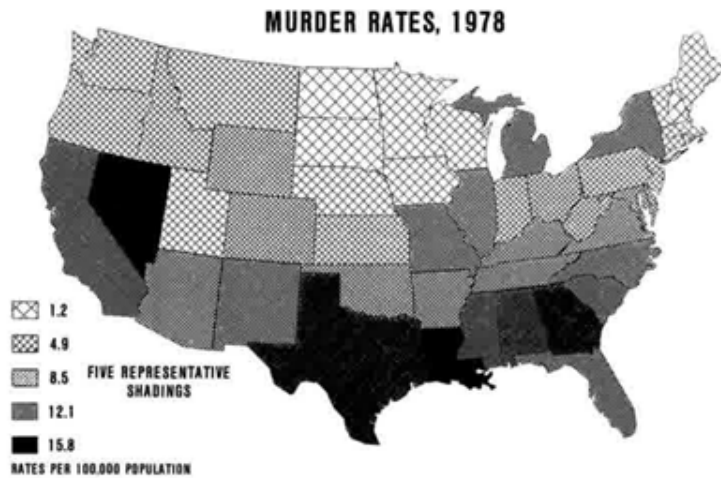


MURDER RATES PER 100,000 POPULATION, 1978

Framed-rectangle chart on map

CLEVELAND & MCGILL (1984). FIG 29

Rethinking shaded maps



Shaded map

#6



Shading

CLEVELAND & MCGILL (1984). FIG 5

0 - 4 - 8 - 12 - 16

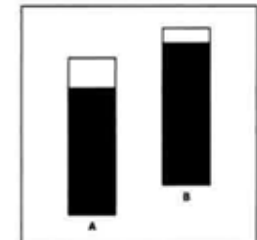


MURDER RATES PER 100,000 POPULATION, 1978

Framed-rectangle chart on map



Bars

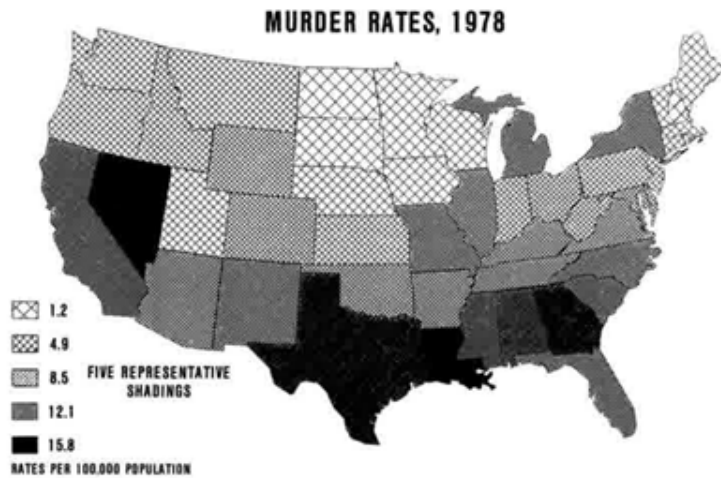


Framed rectangles

CLEVELAND & MCGILL (1984). FIG 12

CLEVELAND & MCGILL (1984). FIG 29

Rethinking shaded maps



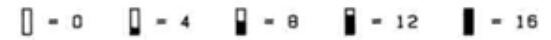
Shaded map

#6



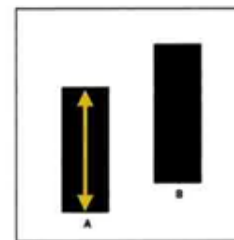
Shading

CLEVELAND & MCGILL (1984). FIG 5

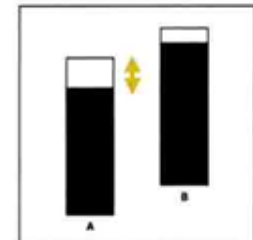


MURDER RATES PER 100,000 POPULATION, 1978

Framed-rectangle chart on map



Bars

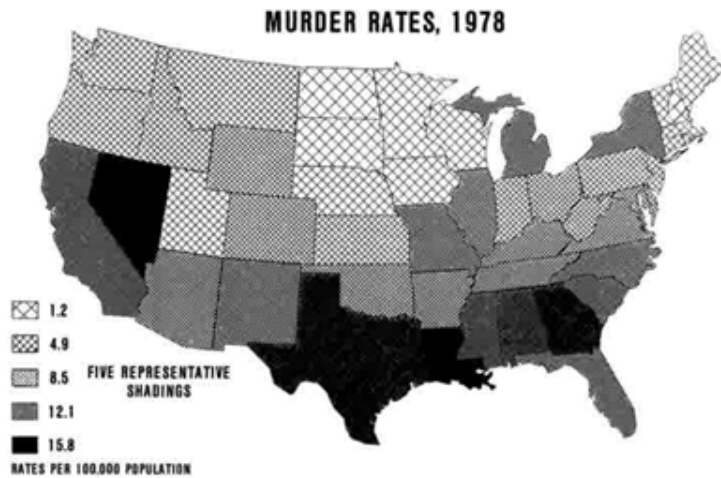


Framed rectangles

CLEVELAND & MCGILL (1984). FIG 12

CLEVELAND & MCGILL (1984). FIG 29

Rethinking **shaded maps**



Shaded map

#6



Shading

CLEVELAND & MCGILL (1984). FIG 5

0 - 4 - 8 - 12 - 16

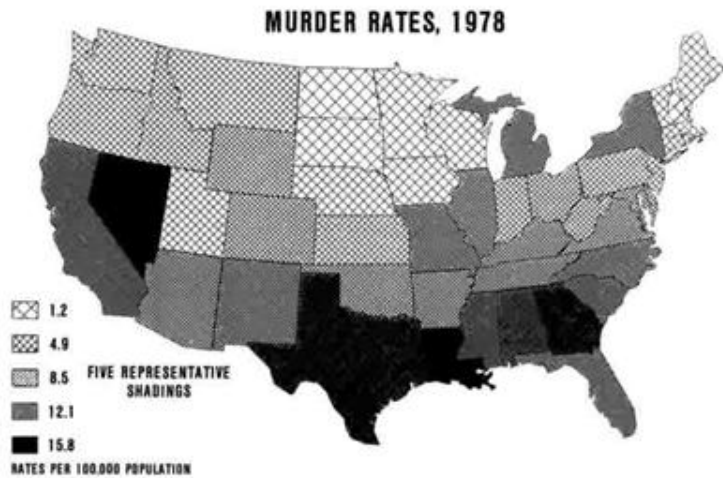


MURDER RATES PER 100,000 POPULATION, 1978

Framed-rectangle chart on map

CLEVELAND & MCGILL (1984). FIG 29

Rethinking shaded maps



Shaded map

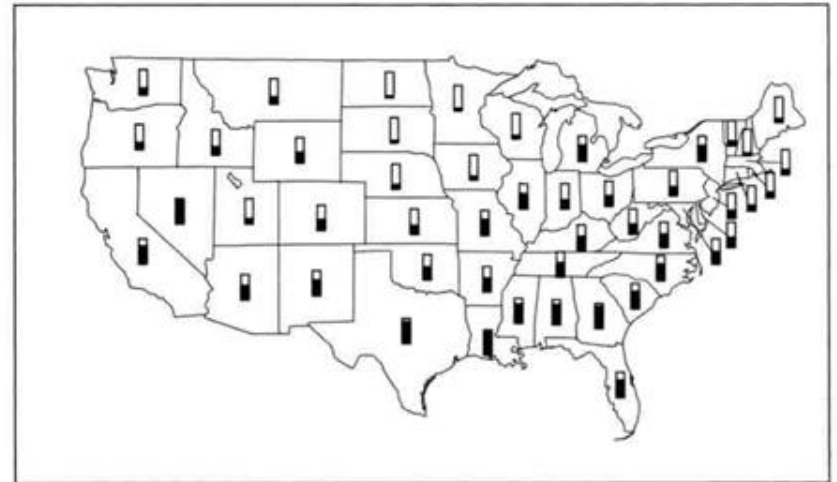
#6



Shading

CLEVELAND & MCGILL (1984). FIG 5

0 - 4 - 8 - 12 - 16



MURDER RATES PER 100,000 POPULATION, 1978

Framed-rectangle chart on map

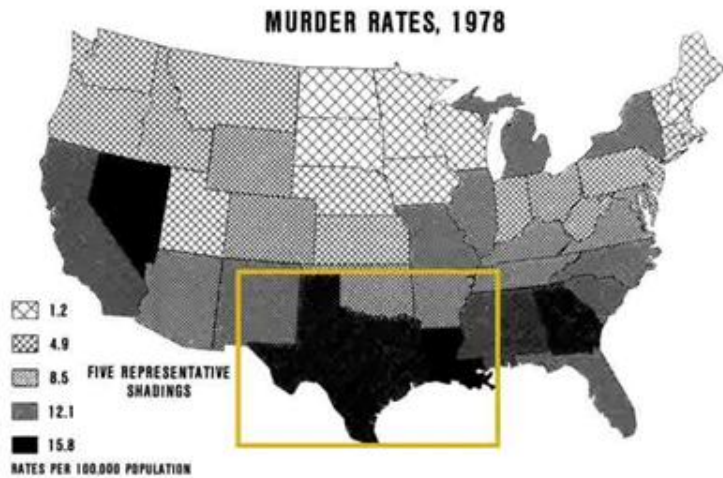
#2



Position in non aligned scales

CLEVELAND & MCGILL (1984). FIG 29

Rethinking shaded maps



Shaded map

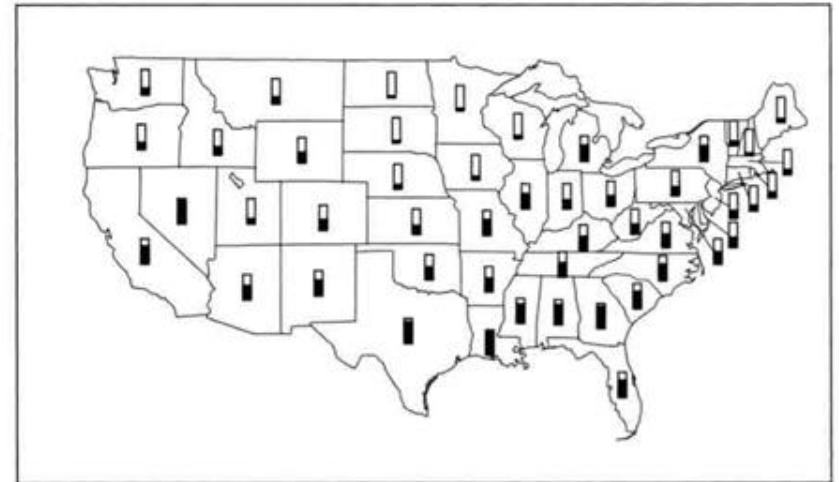
#6



Shading

CLEVELAND & MCGILL (1984). FIG 5

0 - 4 - 8 - 12 - 16



MURDER RATES PER 100,000 POPULATION, 1978

Framed-rectangle chart on map

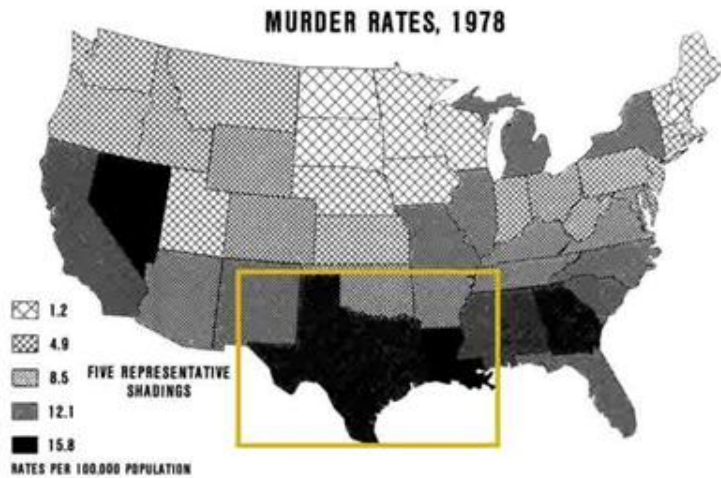
#2



Position in non aligned scales

CLEVELAND & MCGILL (1984). FIG 29

Rethinking **shaded maps**



Shaded map

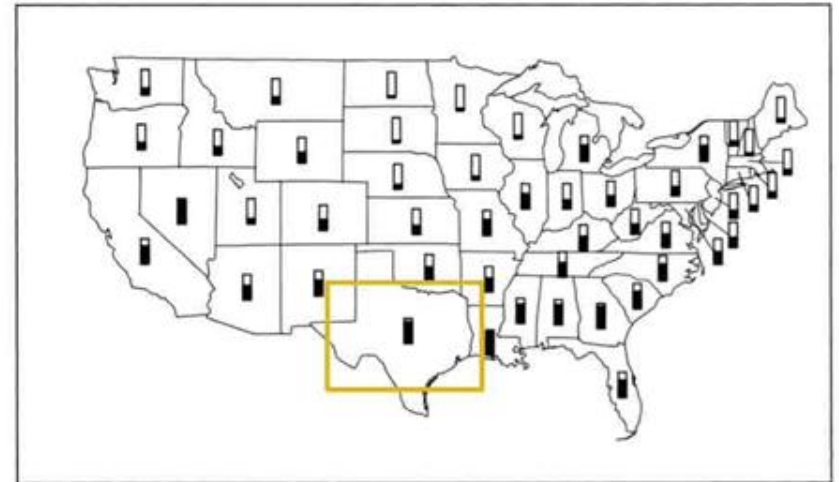
#6



Shading

CLEVELAND & MCGILL (1984). FIG 5

0 - 4 - 8 - 12 - 16



MURDER RATES PER 100,000 POPULATION, 1978

Framed-rectangle chart on map

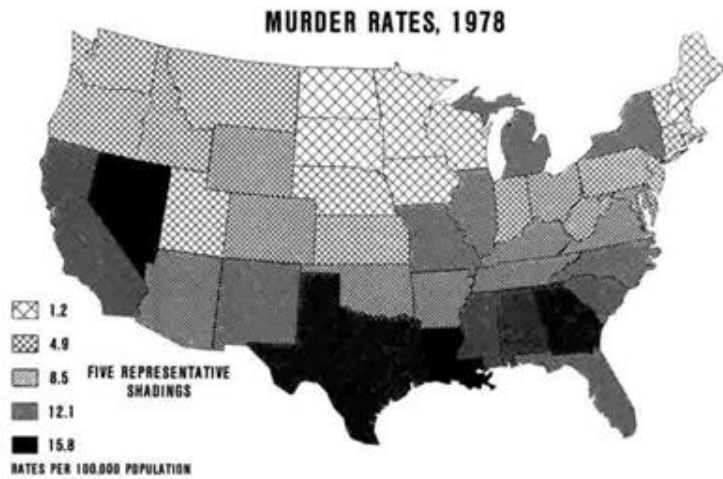
#2



Position in non aligned scales

CLEVELAND & MCGILL (1984). FIG 29

Rethinking shaded maps



Shaded map

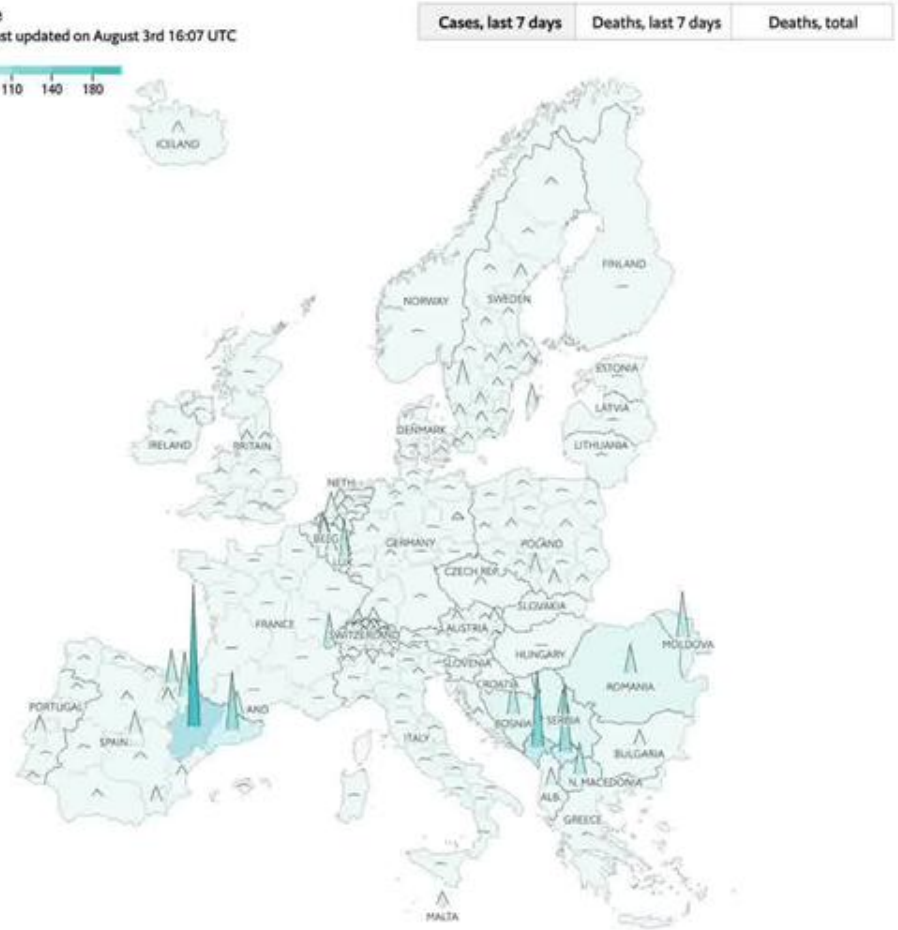
#6



Shading

CLEVELAND & MCGILL (1984). FIG 5

Covid-19 in Europe
Per 100,000 people, last updated on August 3rd 16:07 UTC



SOURCE: THE ECONOMIST

Rethinking **shaded maps**

Covid-19 in Europe

Per 100,000 people, last updated on August 3rd 16:07 UTC

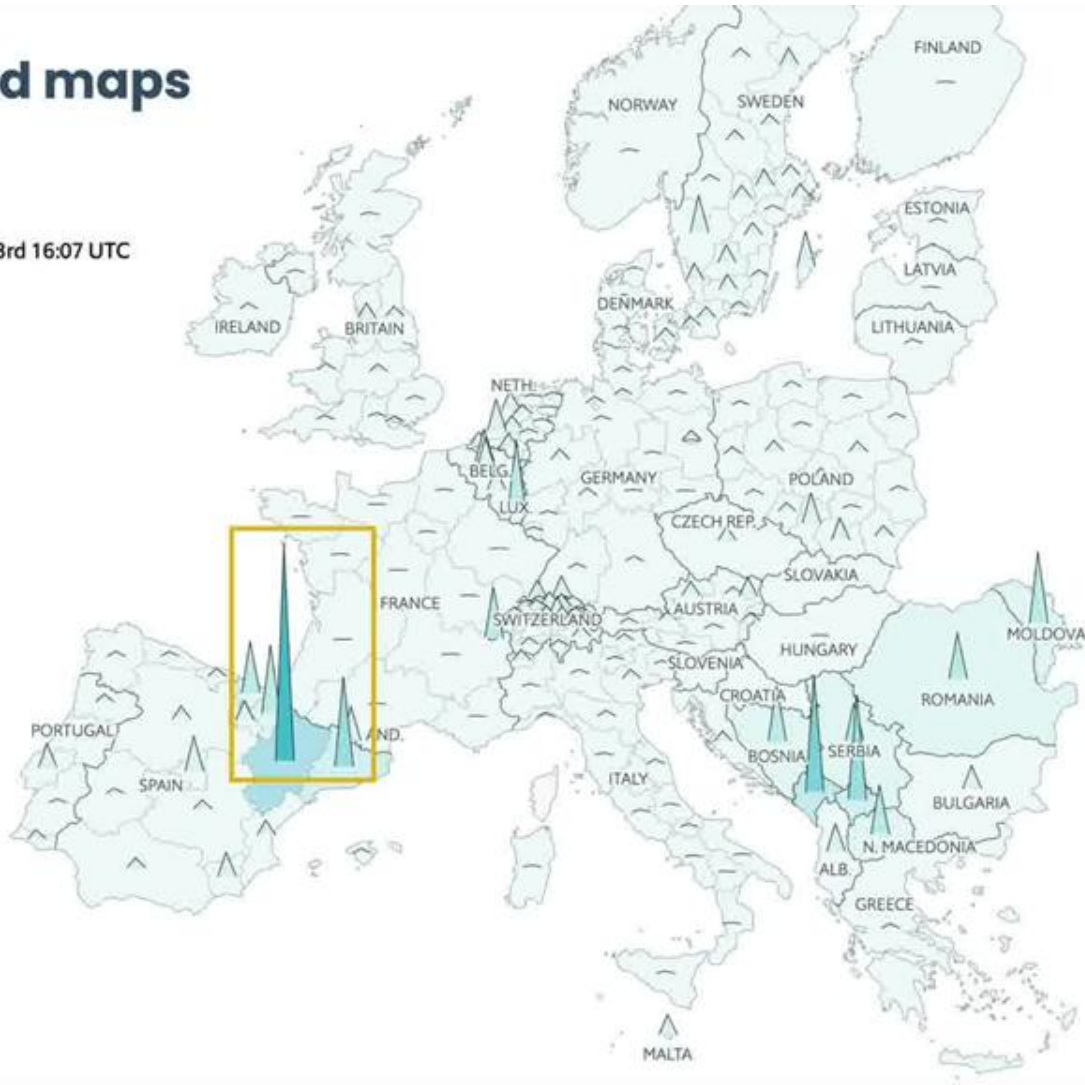


SOURCE: THE ECONOMIST

Rethinking **shaded maps**

Covid-19 in Europe

Per 100,000 people, last updated on August 3rd 16:07 UTC

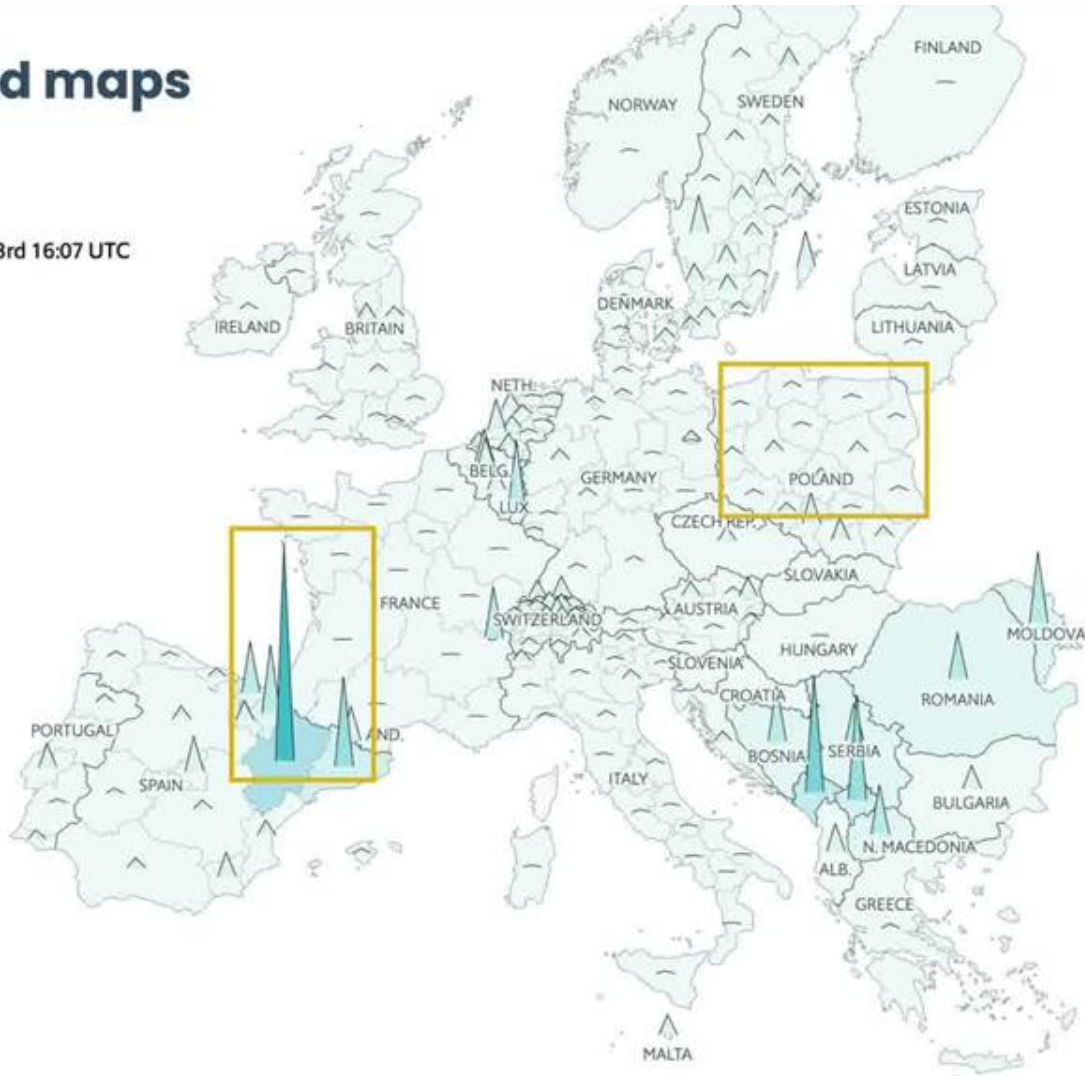
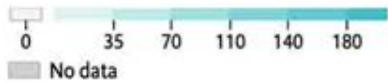


SOURCE: THE ECONOMIST

Rethinking **shaded maps**

Covid-19 in Europe

Per 100,000 people, last updated on August 3rd 16:07 UTC

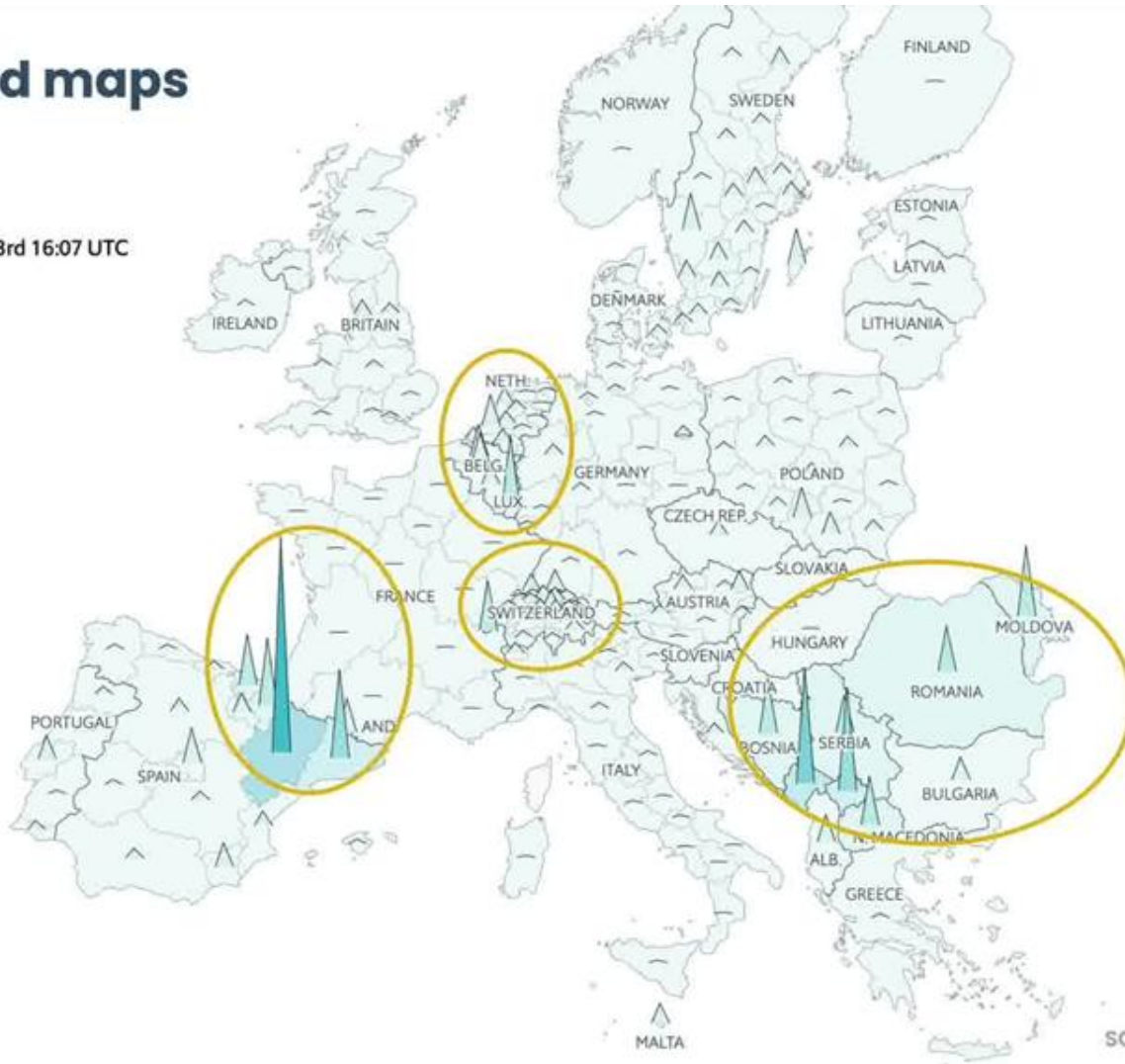
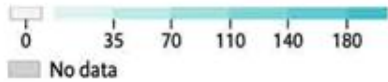


SOURCE: THE ECONOMIST

Rethinking **shaded maps**

Covid-19 in Europe

Per 100,000 people, last updated on August 3rd 16:07 UTC



SOURCE: THE ECONOMIST

Take into account human perception