

# Modellierung und digitale Karten

Hauptseminar Wintersemester 2022–23

Woche 1

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# Studienleistung

- 2 Präsentationen
  - 1 Projektbeschreibung (Dezember)
  - 1 Lagebericht Studierendenprojekte (Januar)
- An Diskussionen teilnehmen
  - Unschön wenn niemand Fragen stellt, aber
  - Keine individuelle Kontrolle



# Modulprüfung AM2

- (Mündliche Prüfung)
- Studierendenprojekte
  - Karte- / Modellprojekt
  - Gruppe, 2–4
- Projekteinreichung
  - Funktionierendes Projekt
  - Quellcode/Daten
  - Essay
  - Stichtag: Freitag 17. März



# Semesterplan

- Woche 1–4
  - Introduction zu den Themen (Vorlesungen)
  - Sie planen Projektpräsentation
- Woche 5–7
  - Projektpräsentationen mit Zusammenfassung
- Woche 8–9
  - Sie planen Ihre Studierendenprojekte
  - Methode-Introductionen
- Woche 10–12
  - Projektarbeit mit Beratung
- Woche 13–15
  - Lageberichte Studierendenprojekte
  - Zusammenfassung des Semesters



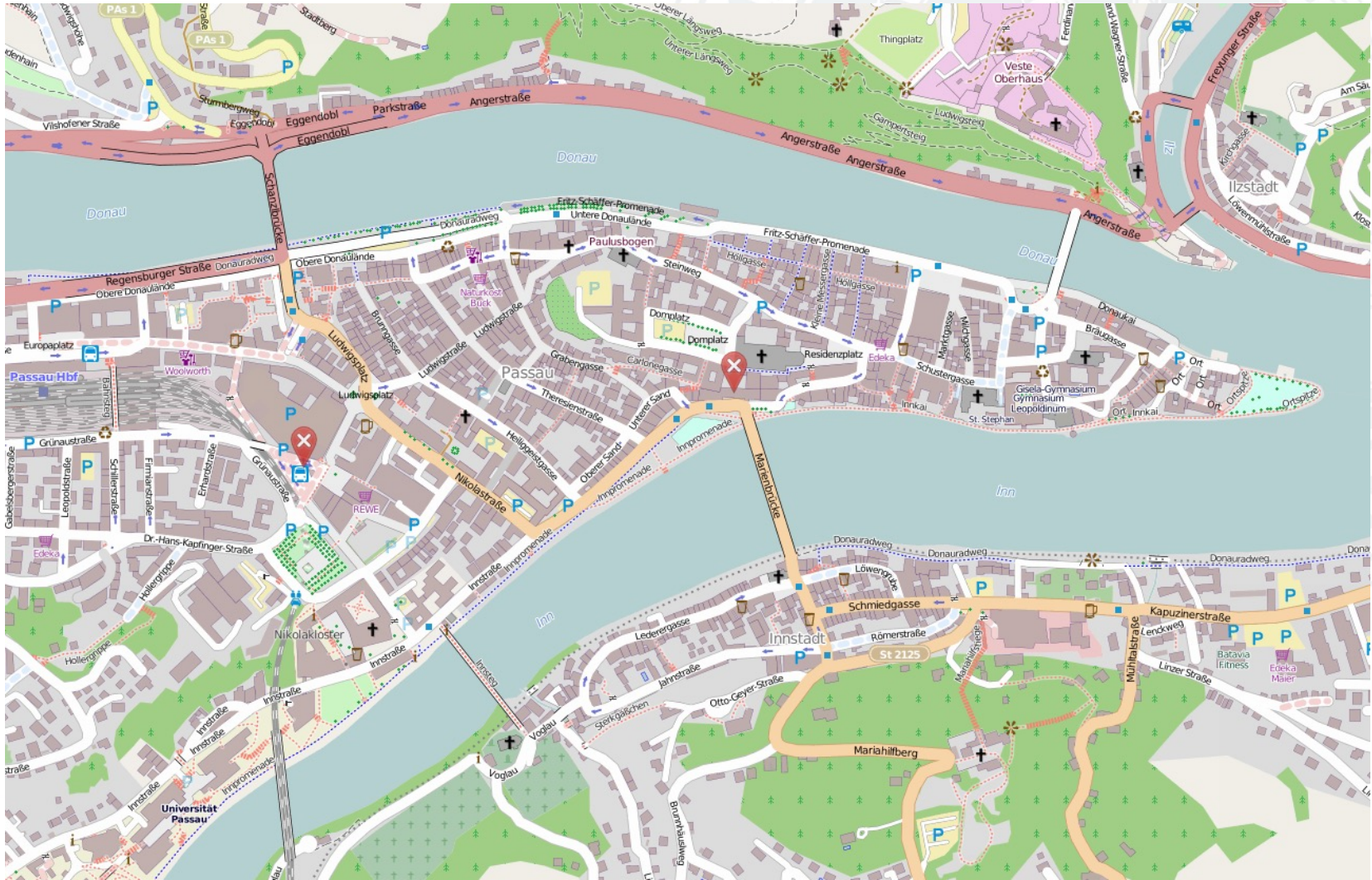


# Fragestellungen Projektpräsentationen

- Was zeigt dieses Projekt?
- Warum wurde es entwickelt?
- Wer hat es entwickelt?
  - Erstellung
  - Finanzierung
- Für wen?
  - Zielgruppe
  - Tatsächliche Verwendung
- Ist das Projekt gut?
- Ist es Wahrhaftig?



# Was ist eine Karte?



OpenStreetMap. Copyright OpenStreetMap and contributors, under an open license URL:  
<http://www.openstreetmap.org/#map=15/48.5662/13.4608&layers=N>



# Was ist eine Karte?



World Index Map. National Geospatial-Intelligence Agency.

URL: <http://earth-info.nga.mil/GandG/coordsys/onlinedatum/indexmap.html>



# Was ist eine Karte?

“Here’s what the Earth really looks like...”  
(von der Webseite)

Stimmt das?



The Most Famous Map Of The World Is Completely Inaccurate. Sick Chirpse.  
URL: <http://www.sickchirpse.com/world-map-inaccurate/2/>



# Was ist eine Karte?

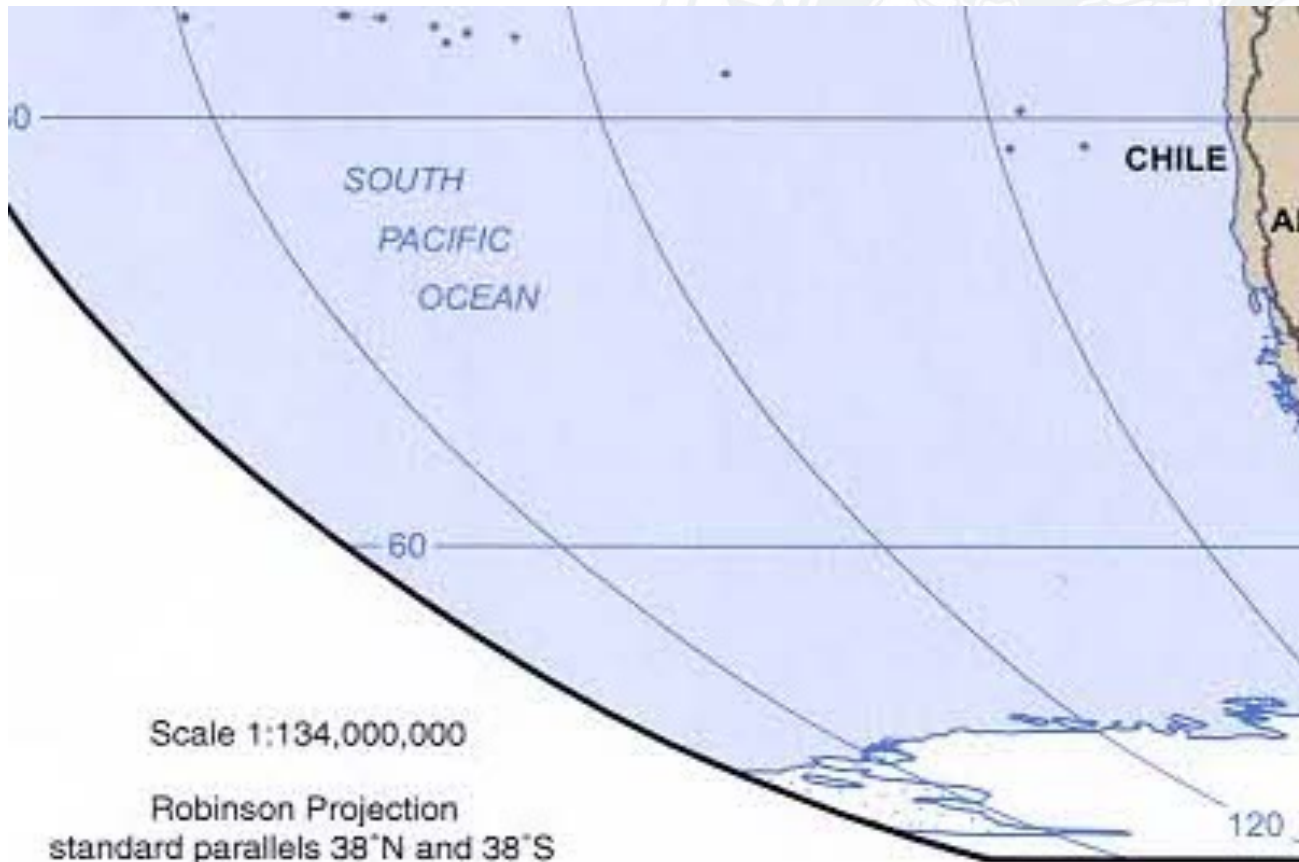


World Index Map. National Geospatial-Intelligence Agency.

URL: <http://earth-info.nga.mil/GandG/coordsys/onlinedatum/indexmap.html>



# Was ist eine Karte?



World Index Map. National Geospatial-Intelligence Agency.

URL: <http://earth-info.nga.mil/GandG/coordsys/onlinedatum/indexmap.html>





**Legend**

**Topography**

- Contour lines: 10m, 20m, 30m, 40m, 50m, 60m, 70m, 80m, 90m, 100m, 110m, 120m, 130m, 140m, 150m, 160m, 170m, 180m, 190m, 200m, 210m, 220m, 230m, 240m, 250m, 260m, 270m, 280m, 290m, 300m, 310m, 320m, 330m, 340m, 350m, 360m, 370m, 380m, 390m, 400m, 410m, 420m, 430m, 440m, 450m, 460m, 470m, 480m, 490m, 500m, 510m, 520m, 530m, 540m, 550m, 560m, 570m, 580m, 590m, 600m, 610m, 620m, 630m, 640m, 650m, 660m, 670m, 680m, 690m, 700m, 710m, 720m, 730m, 740m, 750m, 760m, 770m, 780m, 790m, 800m, 810m, 820m, 830m, 840m, 850m, 860m, 870m, 880m, 890m, 900m, 910m, 920m, 930m, 940m, 950m, 960m, 970m, 980m, 990m, 1000m

**Water**

- River
- Lake
- Stream
- Canal

**Infrastructure**

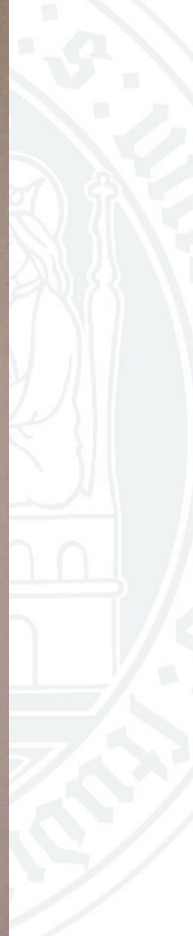
- Road
- Railway
- Power line
- Telegraph line

**Buildings**

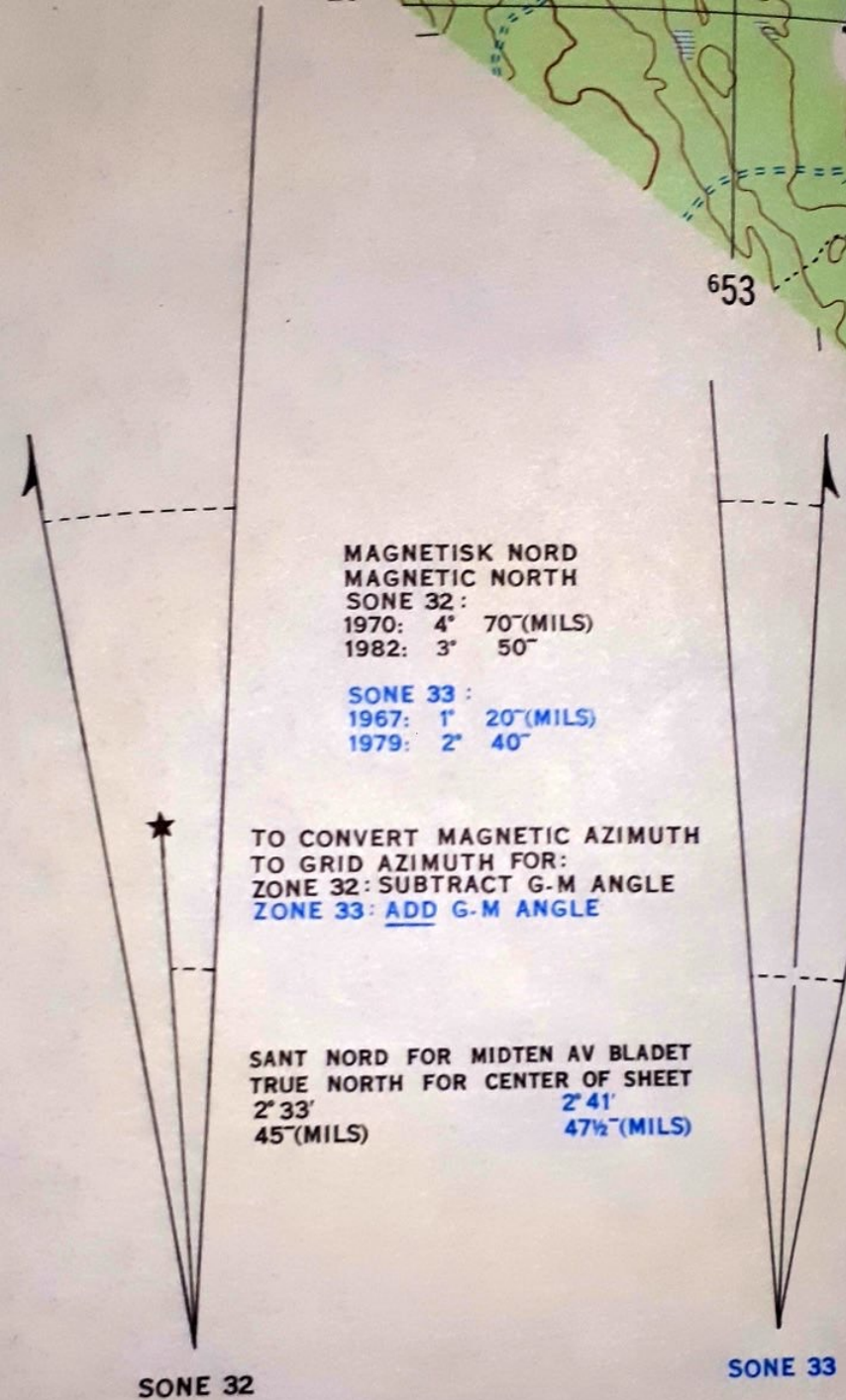
- House
- Church
- Manor
- Windmill
- Water tower
- Windmill
- Water tower
- Windmill
- Water tower

**Other**

- Forest
- Field
- Marsh
- Swamp
- Ice
- Snow







Series M 816 Series  
 Blad HASLEMOEN V Sheet  
 Utgave 2 - NOR Edition

**Grænse. Boundaries**

Riks- med røys og merke. International with markers	+++++
Fylke-, Kommune. County, District	+...+
Sokn-, Statsallmenning. Parish, Crown land	.....
Kirke/Kyrkje. Kapell. Gravplass. Church, Chapel, Cemetery	☛ ☛ ☛
Tank. Tårn, minnesmerke o. l. Tank, Tower, monument, etc.	• •
Trig punkt. Høgdepunkt: Kontrollert. Ukontrollert	▲ • 550 x 100
Trig point, Spot elevation. Checked, Unchecked	
Høgd på vatn: Kontrollert. Ukontrollert	2½ 150
Lake elevation: Checked, Unchecked	
Skog. Woods.	[Green box]
Myr. Torvtak. Marsh; Peat cuttings	[Blue box]

**Bygninger i tilnærmet grunnriss**

Buildings in approximate ground plan

**Veg. Roads**

	Fast dekke Hard surface	Grusdekke Loose or light surface
Motorveg. Dual highway	[Thick red line]	[Thin red line]
Riksveg. Vegnummer: Europaveg, Riksveg. State road; Route marker: Europe, State road	[Red line with 'E6']	[Red line with '10']
Fylkesveg. County road	[Red line]	[Red line]
Kommunal veg. District road	[Red line]	[Red line]
Privat veg. Vegbom. Private road, Road barrier	[Red line]	[Red line]
Kjerreveg. Merkt sti. Cart track; Path with markers	[Dashed line]	[Dashed line]
Tydelig sti. Lite synlig sti. Distinct path; Track	[Dotted line]	[Dotted line]
Veg under bygging. Vinterveg Road under construction; Winter road	[Dashed line]	[Dashed line]
Bilferje. Mindre ferje. Car ferry; Passenger ferry	[Blue line with boat]	[Blue line with boat]

**Jernbane. Railroads**

Dobbelt spor. Enkelt spor Double track; Single track	[Double line]	[Single line]
Under bygging eller nedlagt. Smalt spor Inoperative; Narrow gauge	[Dashed line]	[Dashed line]
Tunnel. Overbygg. Bro Tunnel; Snowshed; Bridge	[Dashed line with box]	[Dashed line with box]
Planovergang. Veg over, veg under jernbane Level crossing; Underpass; Overpass	[Double line with slash]	[Double line with slash]
Elektrisk sporveg, trallebane. Taubane, skiheis Electric car line; Aerial cableway, ski lift	[Line with cross-ticks]	[Line with cross-ticks]
Telegraf-, telefonlinje. Kraftlinje Telegraph line, telephone line; Power line	[Line with vertical ticks]	[Line with vertical ticks]

Flyfotografert 1959 Off veger ajourført 1966.  
 Utgitt av Forsvarets karttjeneste 1966.

ETTERTRYKK ULOVLIG



# CONTOUR INTERVAL 10 METERS

Index contours: 50 meters

Supplementary contours: 5 meters

Vertical Datum: Mean Sea Level

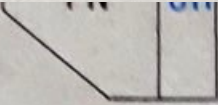
Soundings in meters below Spring Low Water

EUROPEAN DATUM

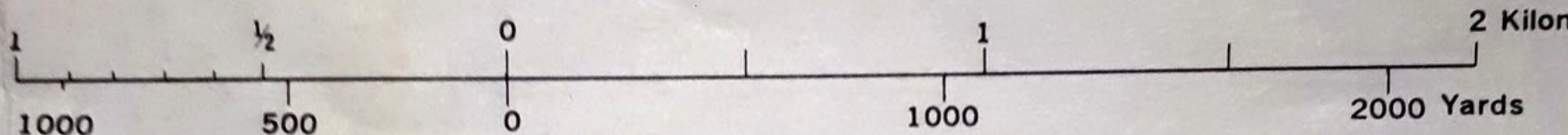
TRANSVERSE MERCATOR PROJECTION

BLACK numbered lines indicate the UTM grid, zone 32

BLUE numbered ticks indicate the UTM grid, zone 33

 12°	Referanse til SONEBELTE gjør tilvisinga fullstendig	32VPN629232	Grid Zone Designation
	SMÅ rutetal gir full koordinat. Bruk bare STORE tal i tilvisinga	<u>6727</u> 000	IGNORE the SMALLER figures of any grid number; these are for finding the full coordinates. Use ONLY the LARGER figures of the grid number

Målestokk, Scale 1: 25 000



# Was ist eine Karte?



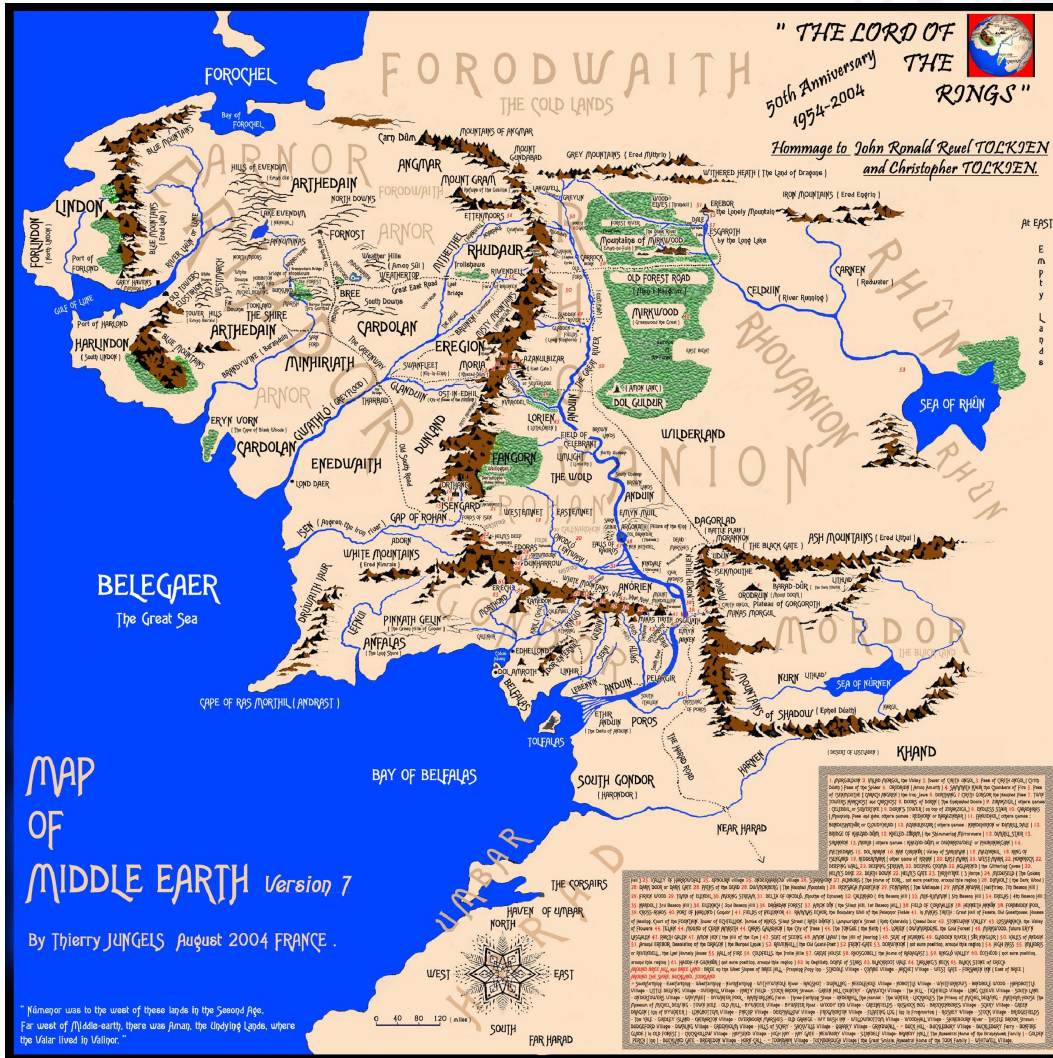


# Was ist eine Karte?



Postcard: Upside Down World Map. About Australia Online Shop  
URL: [http://about-australia-shop.com/product\\_info.php/products\\_id/211](http://about-australia-shop.com/product_info.php/products_id/211)

# Was ist eine Karte?



Map of Middle Earth version 7 by Thierry Jungels August 2004, France.  
URL: <http://hugo1900.pagesperso-orange.fr/MAP-OF-MIDDLE-EARTH-VERSION-7.html>



# Was ist eine Karte?



War in Middle-earth Map - J.R.R. Tolkien.

URL: <http://www.theonering.com/galleries/maps-calendars-genealogies/maps-calendars-genealogies/war-in-middle-earth-map-j-r-r-tolkien>



# Was ist eine Karte?



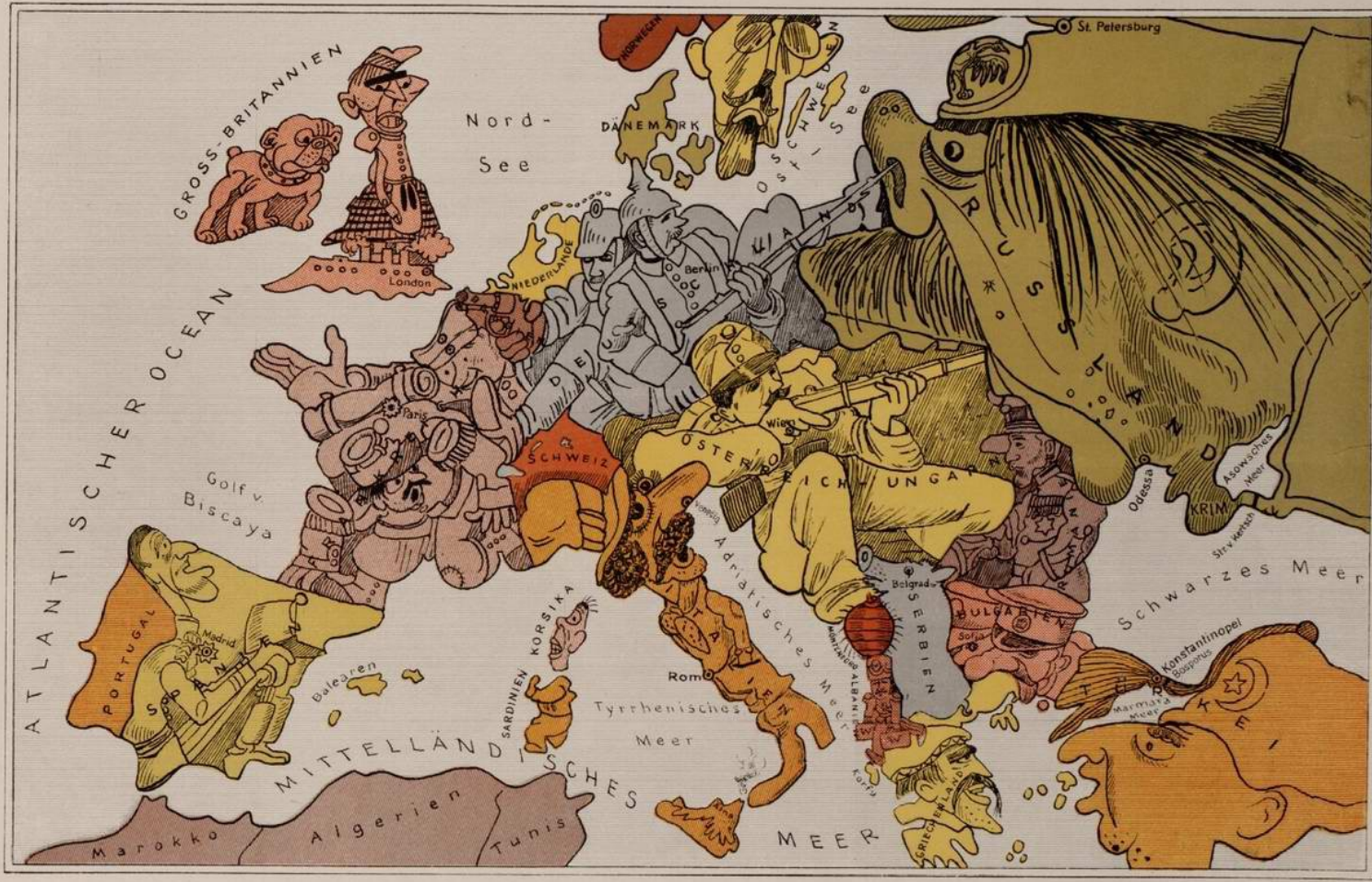
Le Rêve d'Hégémonie Allemande. Source: Propaganda maps. John's map blog.  
URL: <http://johngis3015fall09.blogspot.de/2009/12/propaganda-maps.html>



# Was ist eine Karte?

## KARTE VON EUROPA IM JAHRE 1914

Gezeichnet von W. Trier



Karte von Europa im Jahre 1914. Source: GeoCurrents. Maps as an Instrument of Propaganda, Part 1. URL: <http://www.geocurrents.info/geonotes/maps-as-an-instrument-of-propaganda-part-1>

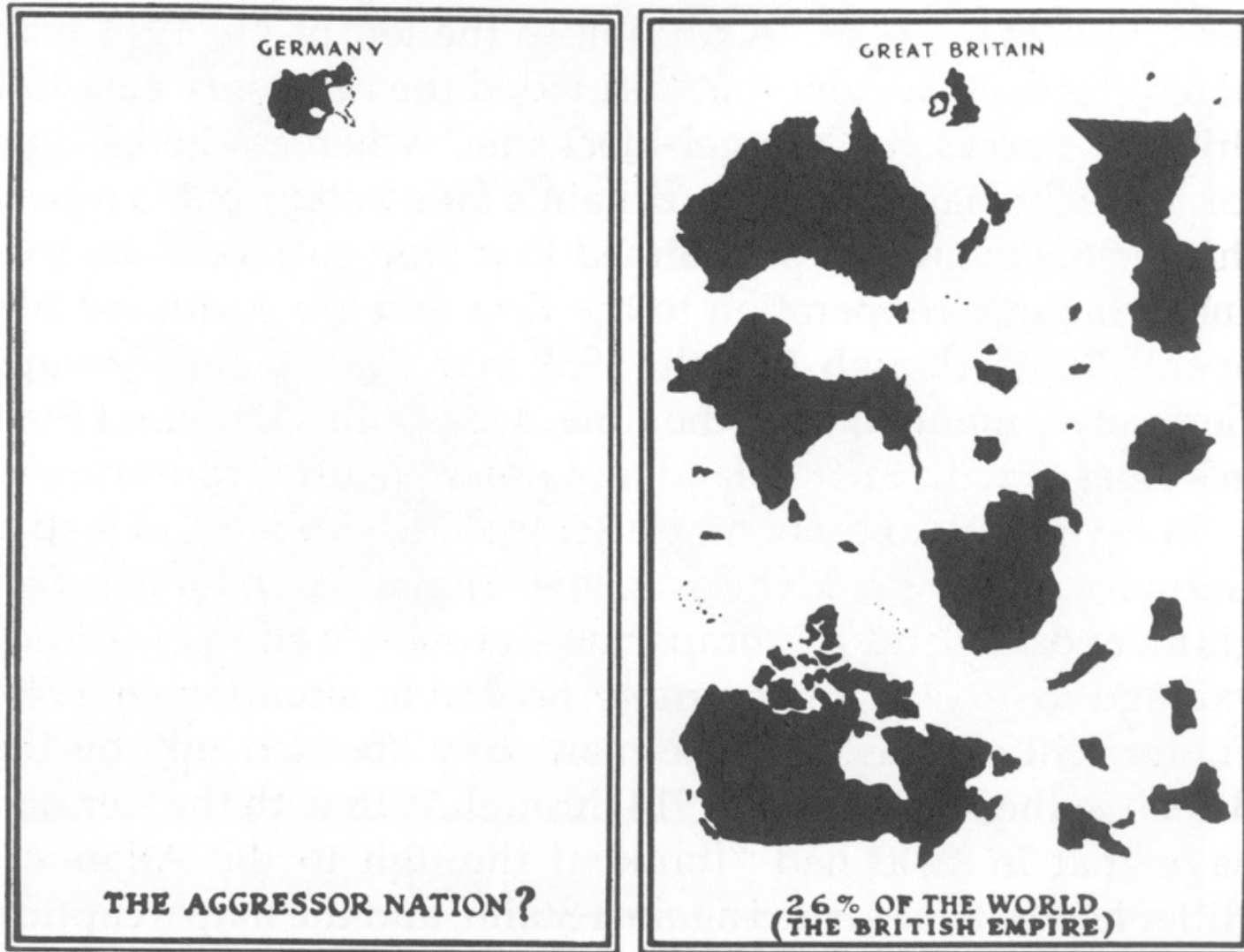




Schumacher, R.v. (1934) Zur Theorie der Raumdarstellung, *Zeitschrift für Geopolitik* 11: 645.

Cf. Monmonier, M. (2015). *The History of Cartography, Volume 6: Cartography in the Twentieth Century*. Chicago, IL: 1003. [https://press.uchicago.edu/books/HOC/HOC\\_V6/Volume6.html](https://press.uchicago.edu/books/HOC/HOC_V6/Volume6.html)

# A STUDY IN EMPIRES



S.n. (1940). A Study in Empires. *Facts in Review*, 2(5): 33.

Cf. Speier, H. (1941). Magic Geography. *Social Research*, 8(3): 319. <http://www.jstor.org/stable/40981787>

Cf. Monmonier, M. (2018). *How to lie with maps* (3 ed.). Chicago: 115.





DEMOCRATIC  
PEOPLE'S  
REPUBLIC OF

KOREA  
Official webpage of t

- Home
- DPR of Korea
- KFA
- E-library
- Tourism
- Gallery

- Home
- DPR of Korea
- Location and Area

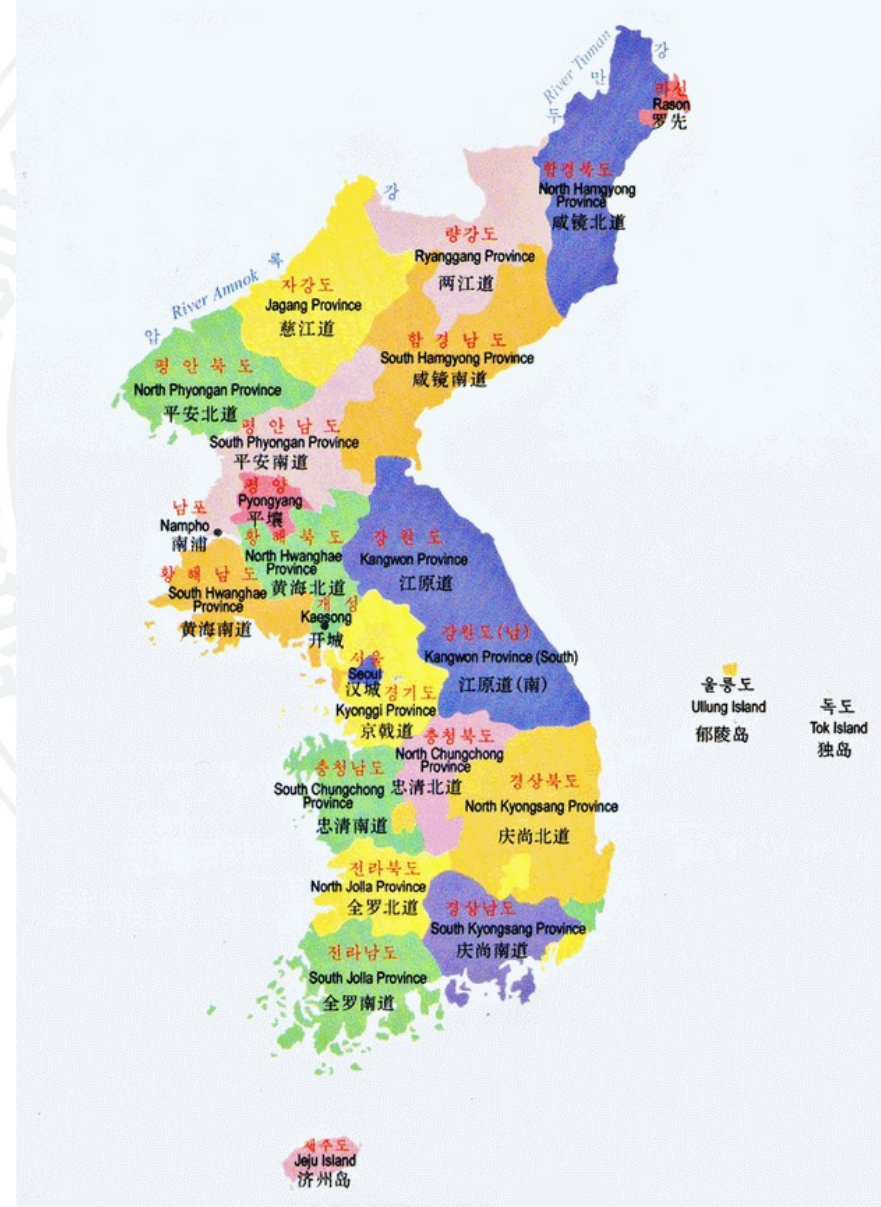


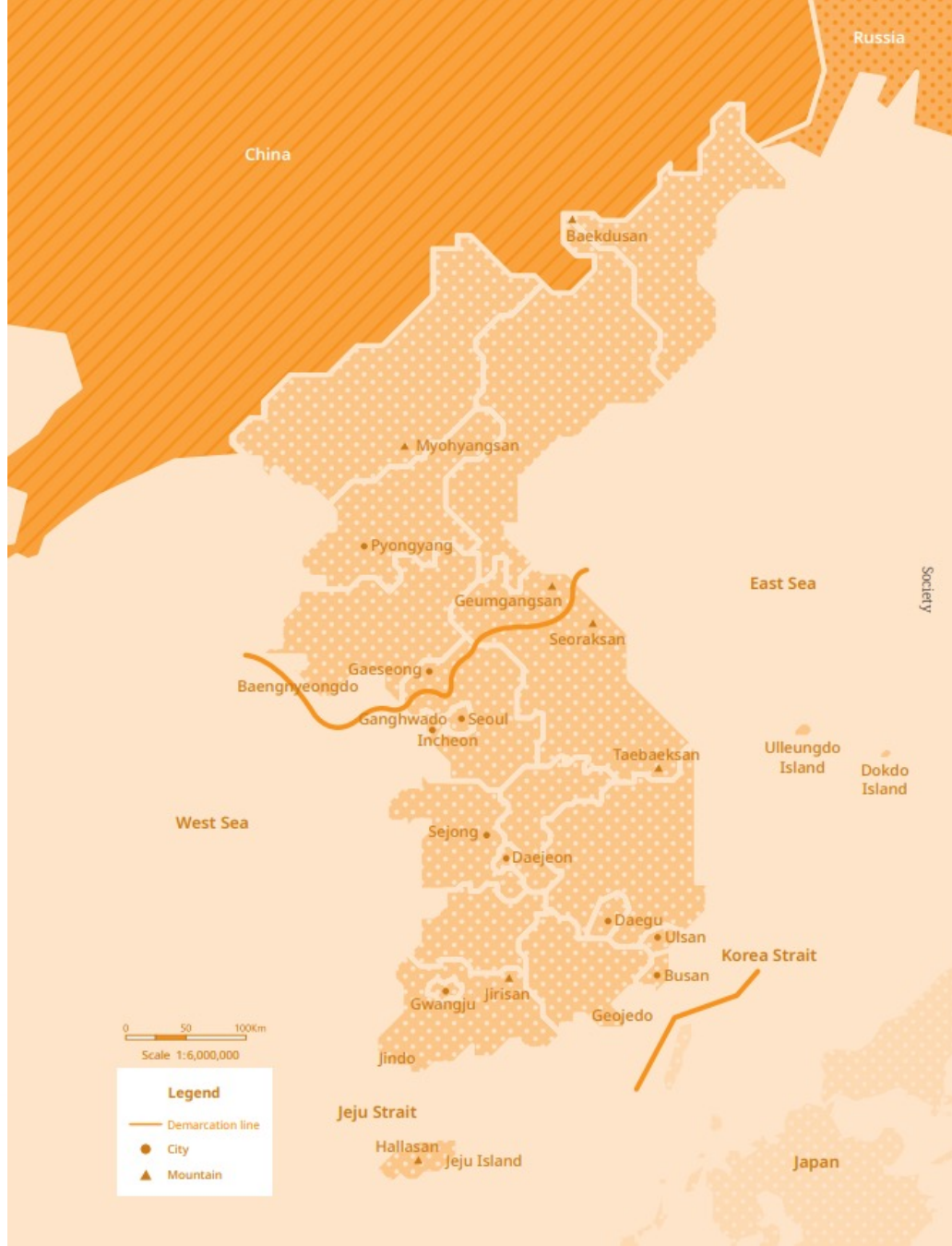
## Location and Area

The DPR Korea is located in the middle of east of Asian Continent. It shares borders with China and Russia in the north with Rivers Amnok and Tuman in between. And it lies opposite Japan in the east with the East Sea of Korea in between.

It lies in latitude 43°00'36"-33°06'43" and in longitude 124° 10'47"-131°52'40".

The Korean peninsula has an area of 223,370 sq.km. The northern half covers an area of 123,138 sq.km and the southern half 100,2321 sq.km.







# Modellierung und Erzählkunst

*Carte Figurative des pertes successives en hommes de l'Armée Française dans la campagne de Russie 1812-1813.*  
 Dressée par M. Minard, Inspecteur Général des Ponts et Chaussées en retraite. Paris, le 20 Novembre 1869.

Les nombres d'hommes présents sont représentés par les largeurs des zones colorées à raison d'un millimètre pour dix mille hommes; ils sont de plus écrits en travers des zones. Le rouge désigne les hommes qui entrent en Russie, le noir ceux qui en sortent. Les renseignements qui ont servi à dresser la carte ont été puisés dans les ouvrages de M. M. Chiers, de Légar, de Fezensac, de Chambray et le journal inédit de Jacob, pharmacien de l'Armée depuis le 28 Octobre. Pour mieux faire juger à l'œil la diminution de l'armée, j'ai supposé que les corps du Prince Jérôme et du Maréchal Davoust qui avaiem été détachés sur Minsk et Mohilow et ont rejoint vers Orscha et Witebsk, avaiem toujours marché avec l'armée.

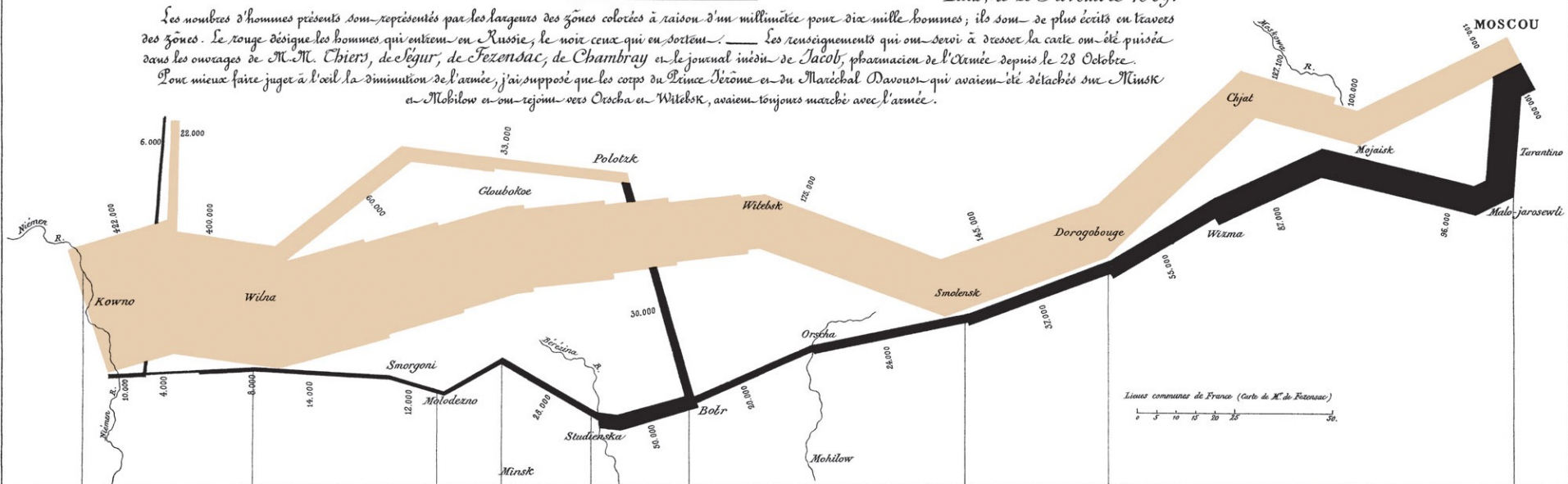
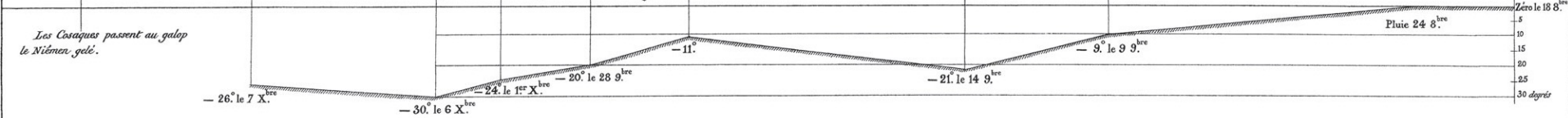


TABLEAU GRAPHIQUE de la température en degrés du thermomètre de Réaumur au dessous de zéro.



Les Cosaques passent au galop le Niemen gelé.

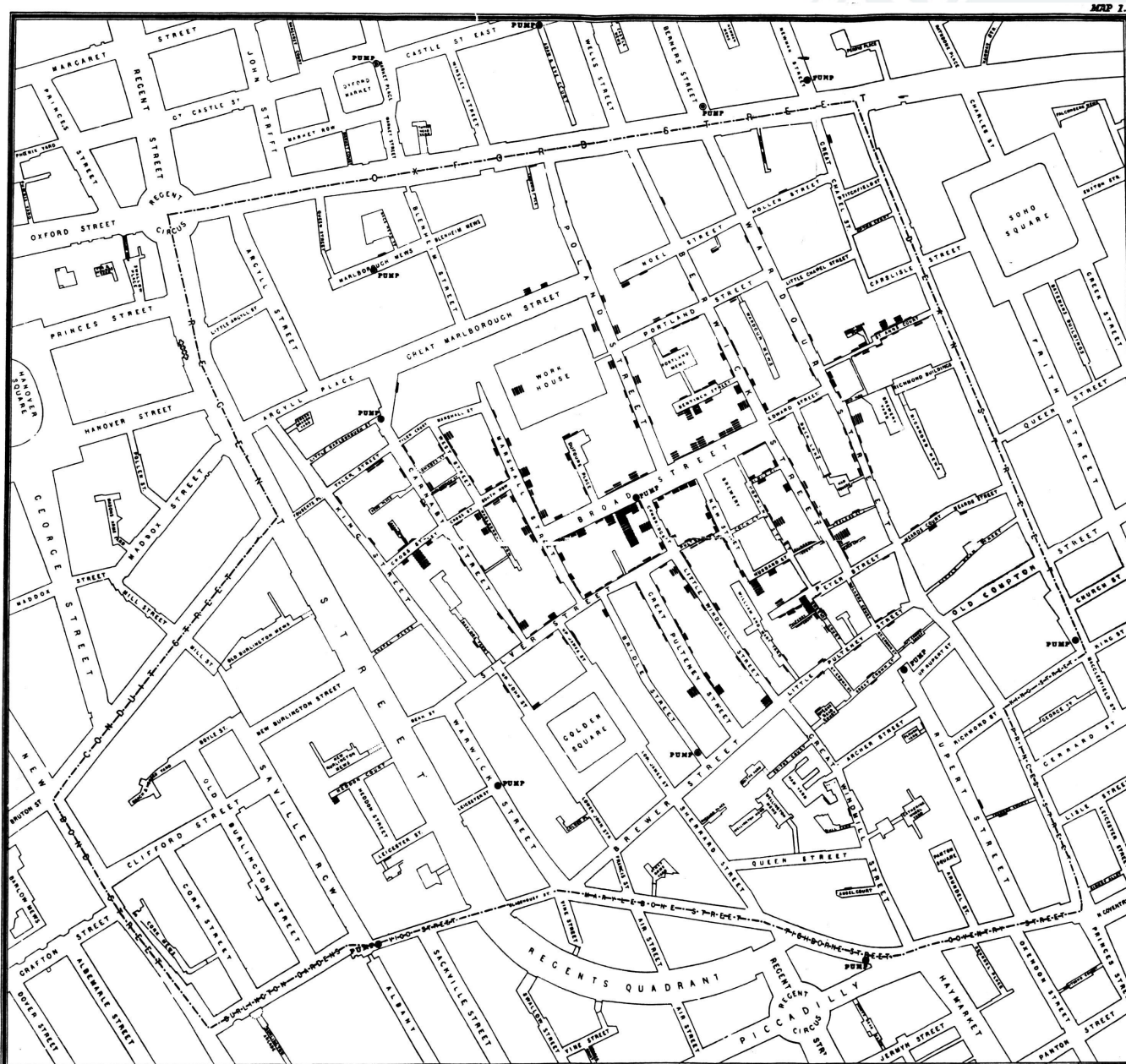
Autog. par Regnier, 8. Par. 5<sup>th</sup> Mars 5<sup>th</sup> 6<sup>th</sup> à Paris.

Imp. Lith. Regnier et Douard.

Charles Minard's 1869 chart showing the number of men in Napoleon's 1812 Russian campaign army, their movements, as well as the temperature they encountered on the return path. Lithograph, 62 x 30 cm. Wikimedia Commons. URL: <http://commons.wikimedia.org/wiki/File:Minard.png>



# Analyse und Verständnis



Original map made by John Snow in 1854. Cholera cases are highlighted in black. Wikimedia Commons. URL: <http://en.wikipedia.org/wiki/File:Snow-cholera-map-1.jpg>

# Eine Karte:

- ein Dokument auf einer ebenen, krummen, oder 2½-dimensionalen Oberfläche
- zeigt die Verteilung von physischen, geografischen und anderen Merkmalen
- jeder Punkt in der Darstellung entspricht einer tatsächlichen geografischen Position gemäß eines Systems
- enthält Texte zur Unterscheidung der gesamten Karte sowie von Teilen dieser
- repräsentiert Dinge, die eine gewisse Beständigkeit aufweisen
- repräsentiert Dinge unabhängig von einer spezifischen Sichtweise

