

Algorithms and images

Using computer vision to analyse historical sources

Thomas Smits
Radboud University
[illustratednewspictures.tumblr.com](https://www.tumblr.com/illustratednewspictures)
t.smits@let.ru.nl



@thomassmits

Radboud University



KB

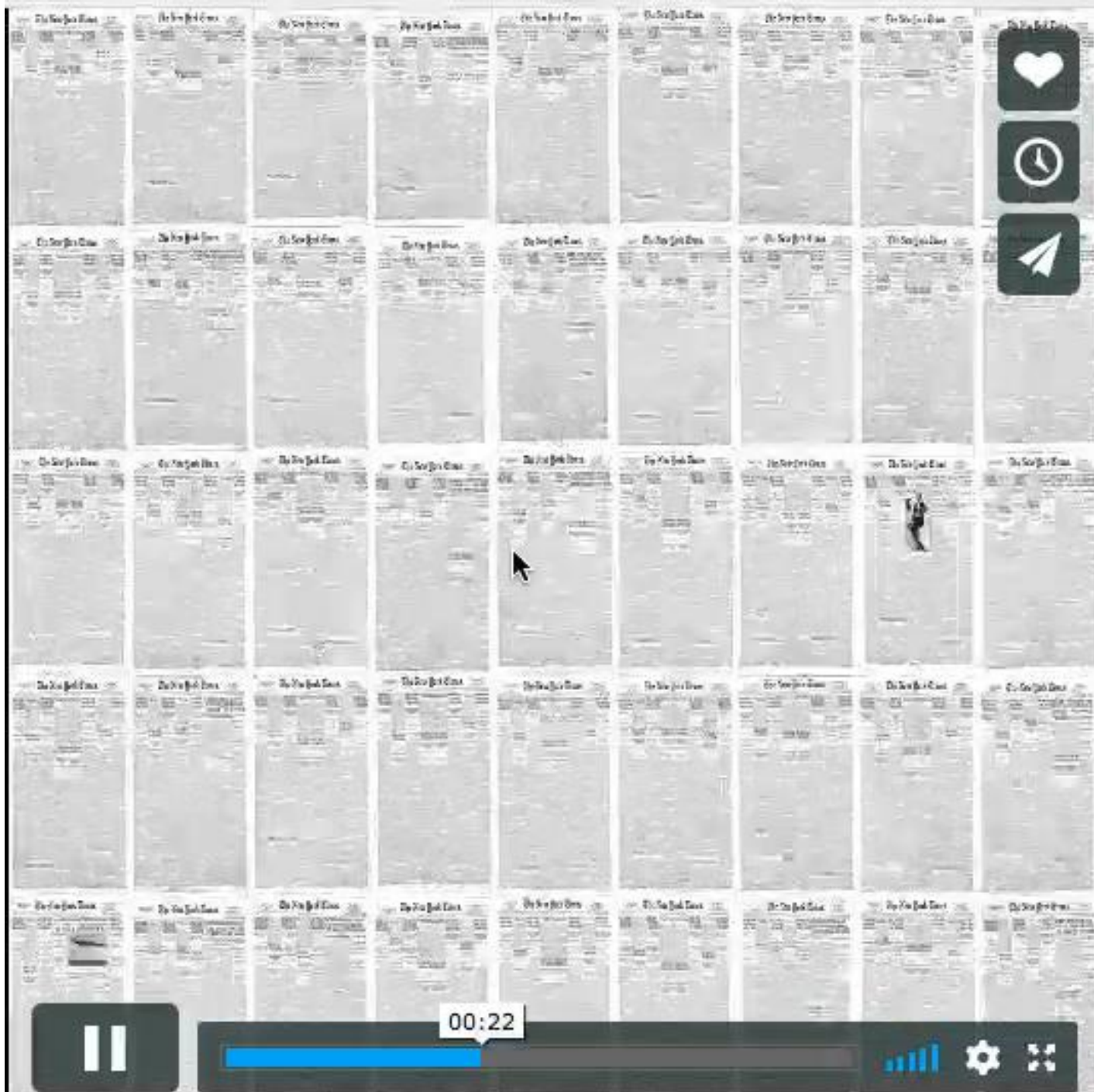
Koninklijke Bibliotheek
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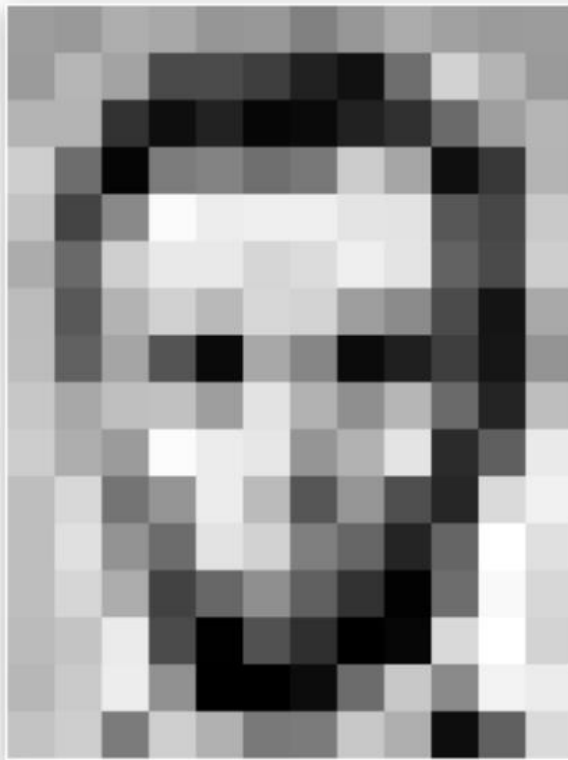


Willem Jan Faber
WillemJan.Faber@KB.nl



Erik Kessels, *24 Hours in Photos* (2011)



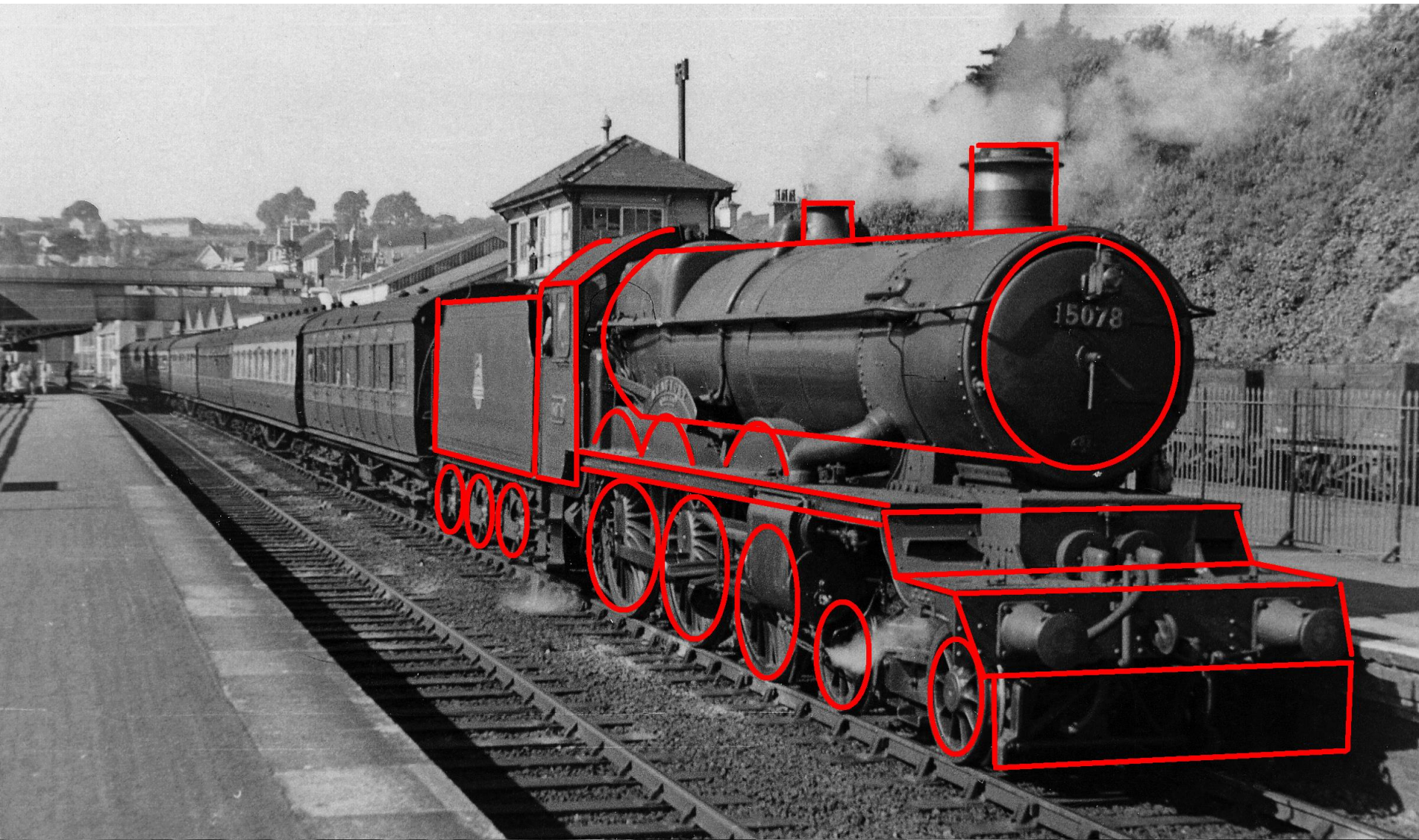


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155	182	163	74	75	62	33	17	110	210	180	154
180	180	50	14	34	6	10	33	48	106	159	181
206	109	5	124	131	111	120	204	165	15	56	180
194	68	137	251	237	239	239	228	227	87	71	201
172	106	207	233	233	214	220	239	228	98	74	206
188	88	179	209	185	215	211	158	139	75	20	169
189	97	165	84	10	168	134	11	31	62	22	148
199	168	191	193	158	227	178	143	182	106	36	190
205	174	155	252	236	231	149	178	228	43	95	234
190	216	116	149	236	187	86	150	79	38	218	241
190	224	147	108	227	210	127	102	36	101	255	224
190	214	173	66	103	143	96	50	2	109	249	215
187	196	235	75	1	81	47	0	6	217	255	211
183	202	237	145	0	0	12	108	200	138	243	236
195	206	123	207	177	121	123	200	175	13	96	218

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Pixel data diagram. At left, our image of Lincoln; at center, the pixels labeled with numbers from 0-255, representing their brightness; and at right, these numbers by themselves.

http://openframeworks.cc/ofBook/chapters/image_processing_computer_vision.html



https://commons.wikimedia.org/wiki/File:Dawlish_railway_station_geograph-2444513-by-Ben-Brooksbank.jpg





input image

$$\begin{pmatrix}
 \begin{array}{ccc}
 118 & + & 11 & + & 27 \\
 \times 0 & & \times -1 & & \times 0 \\
 \\
 56 & + & 41 & + & 81 \\
 \times -1 & & \times 5 & & \times -1 \\
 \\
 32 & + & 65 & + & 110 \\
 \times 0 & & \times -1 & & \times 0
 \end{array} \\
 \\
 = & & -8
 \end{pmatrix}$$

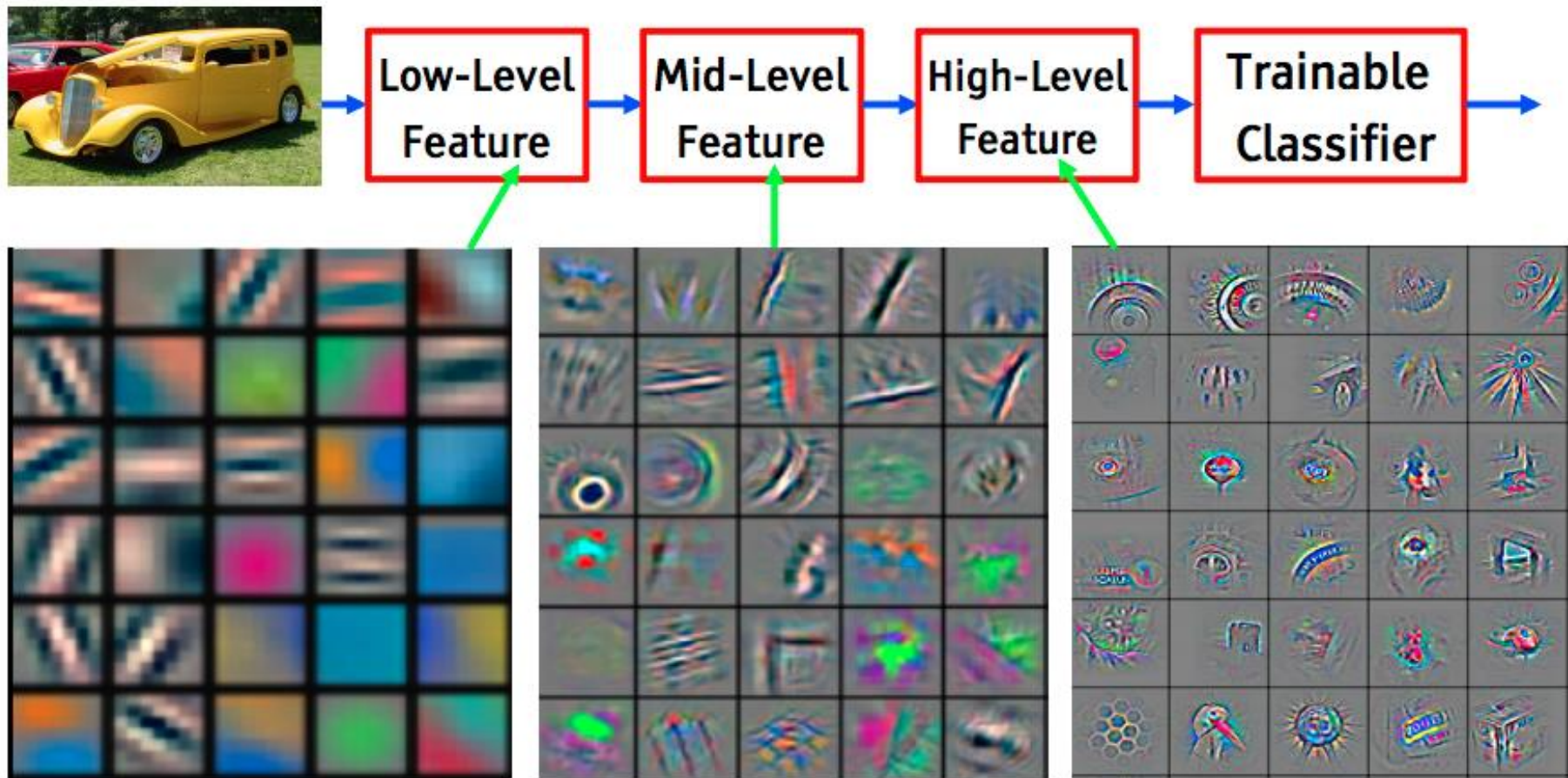
kernel:

sharpen



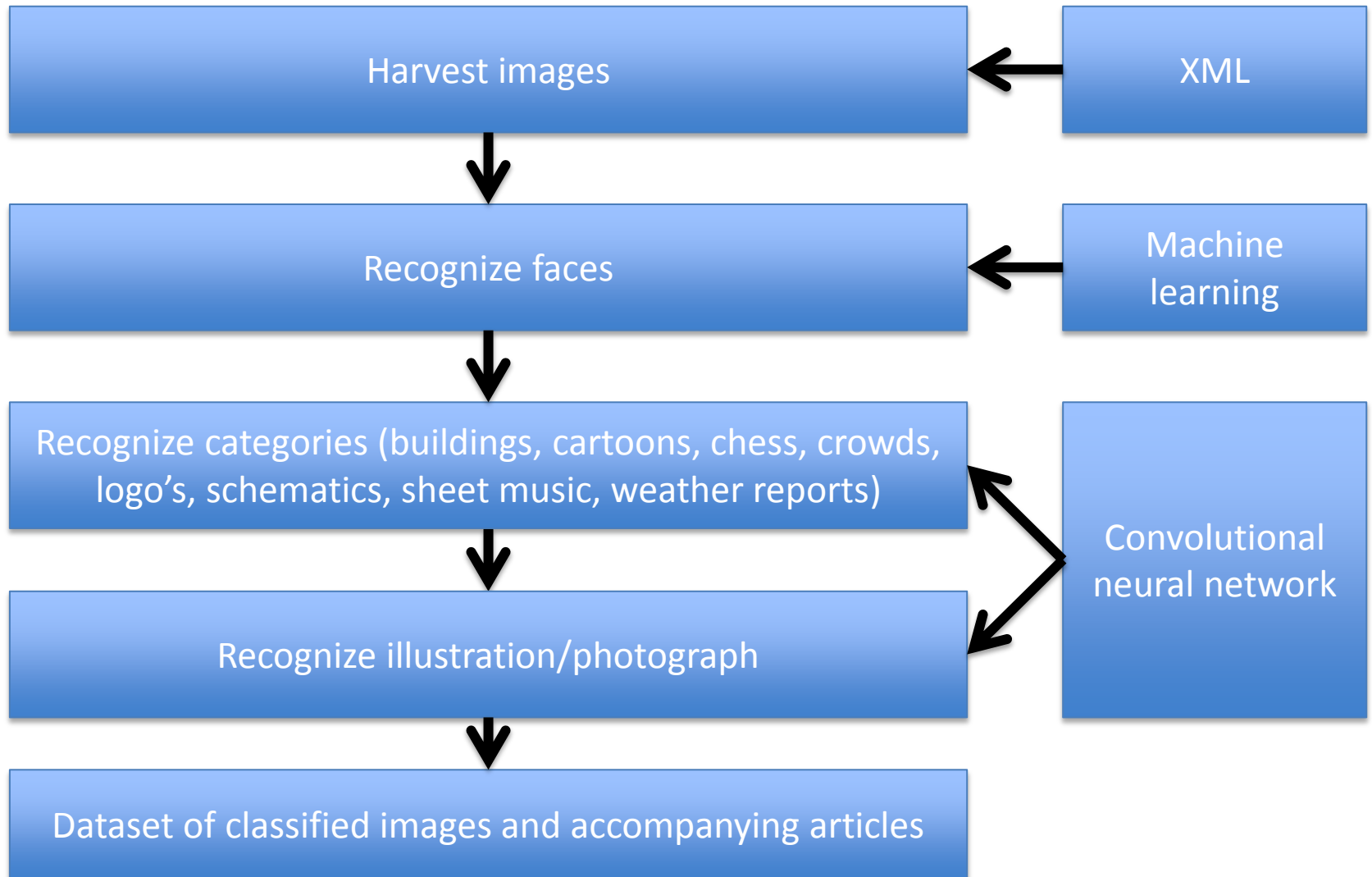
output image

<http://setosa.io/ev/image-kernels/>

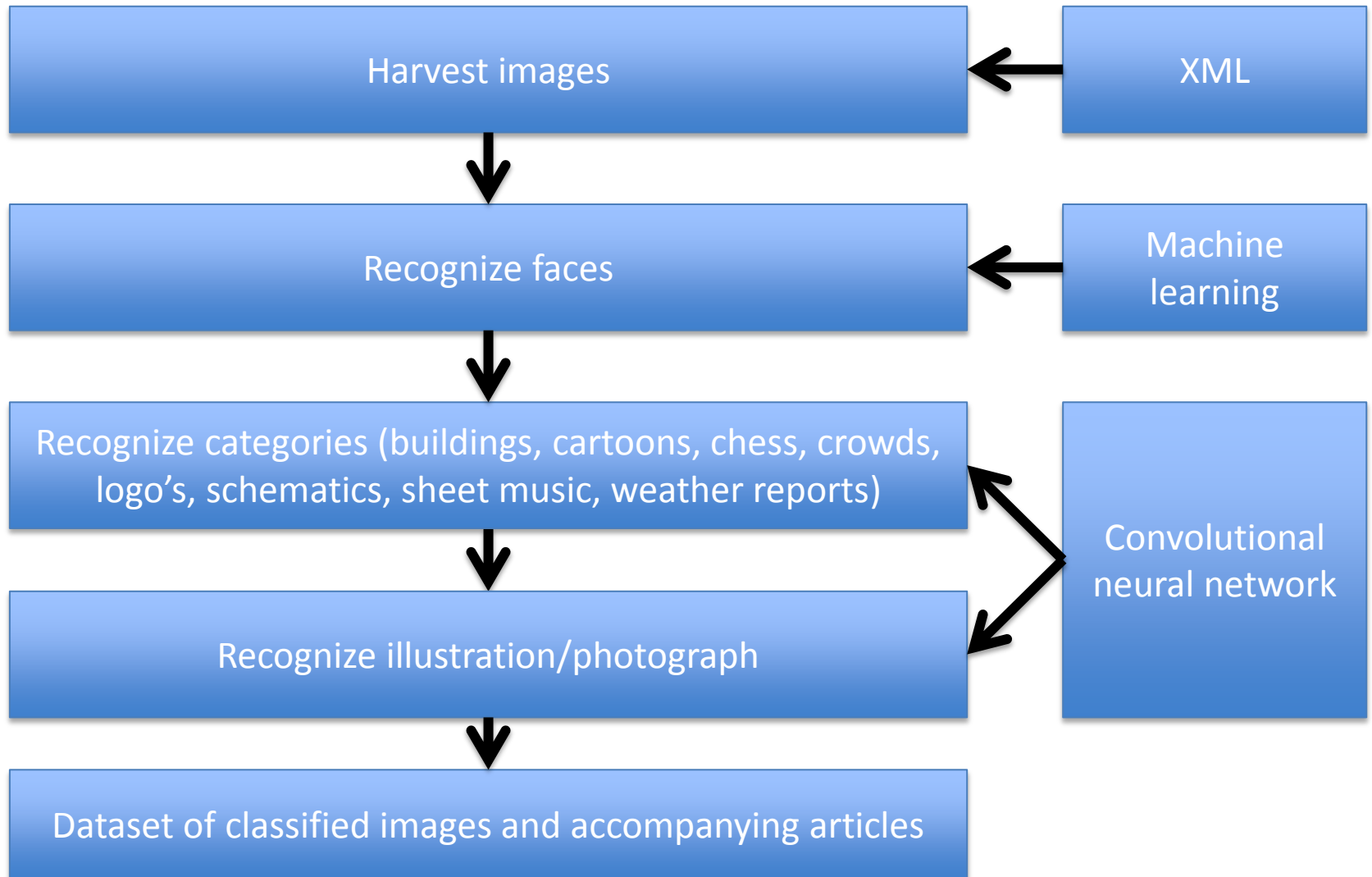


<http://www.iro.umontreal.ca/~bengioy/talks/DL-Tutorial-NIPS2015.pdf>

Pipeline

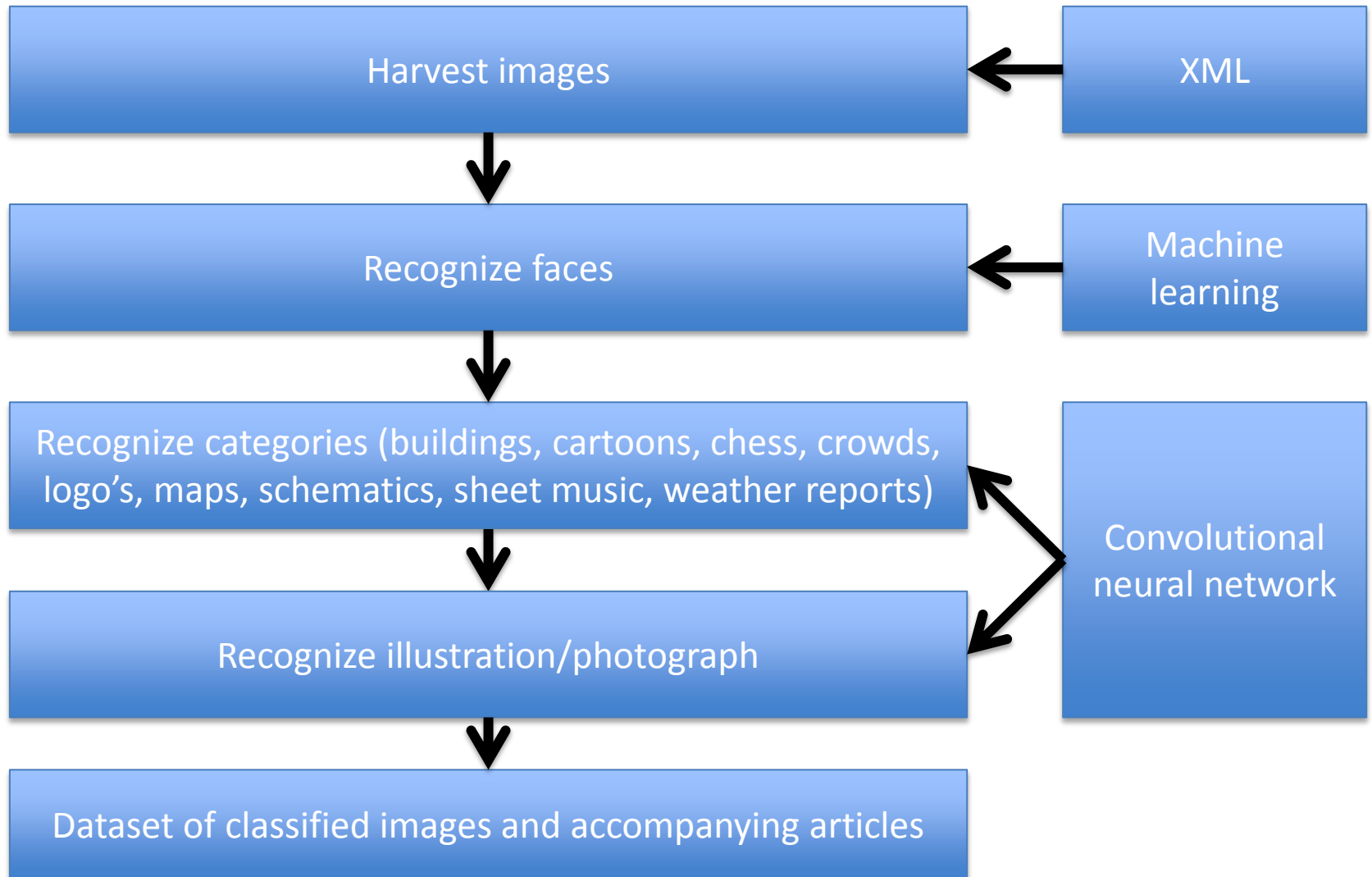


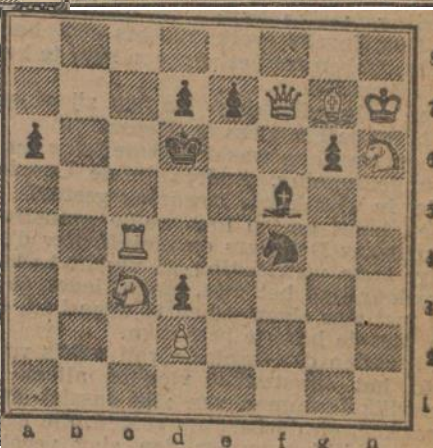
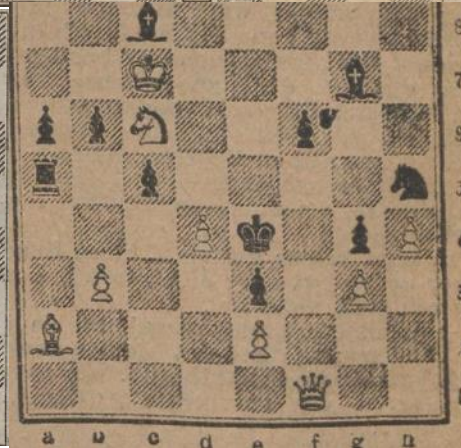
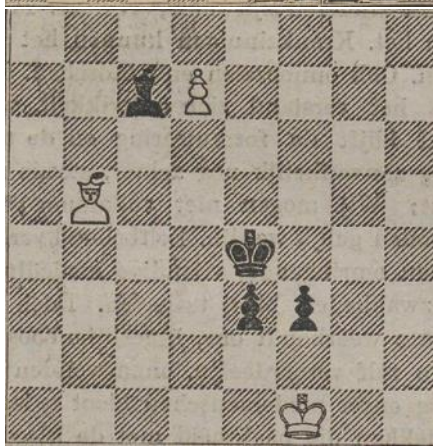
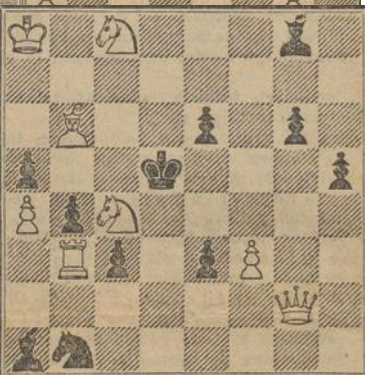
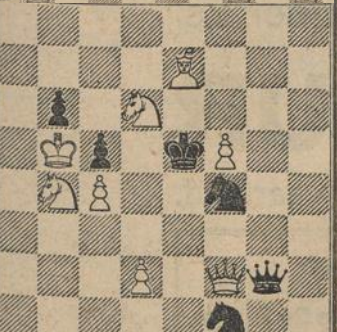
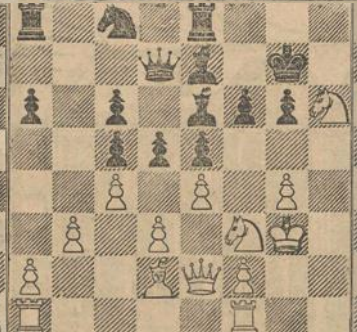
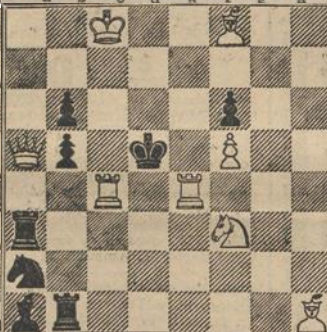
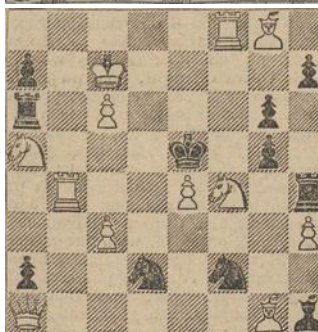
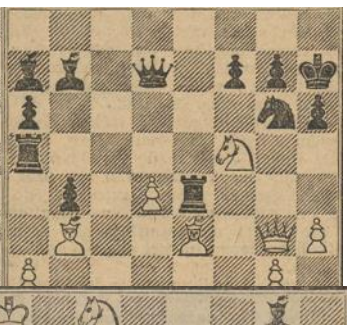
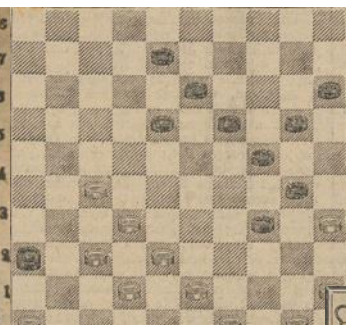
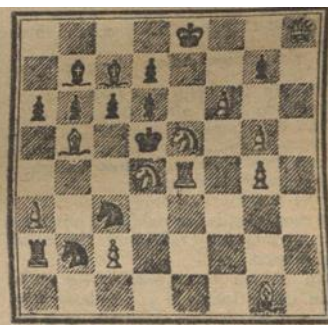
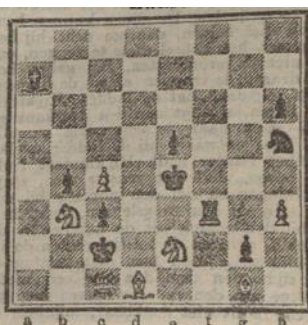
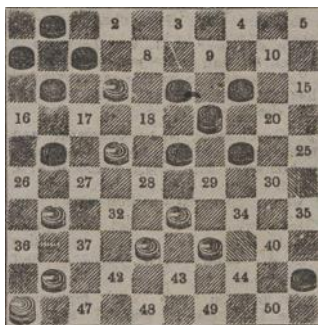
Pipeline

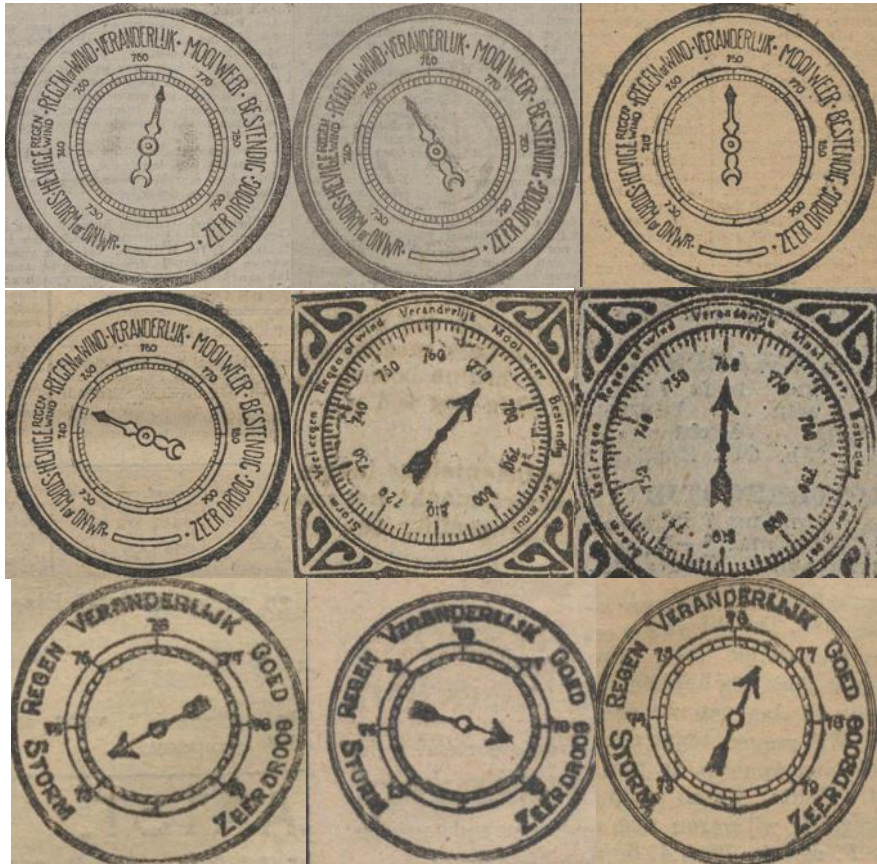




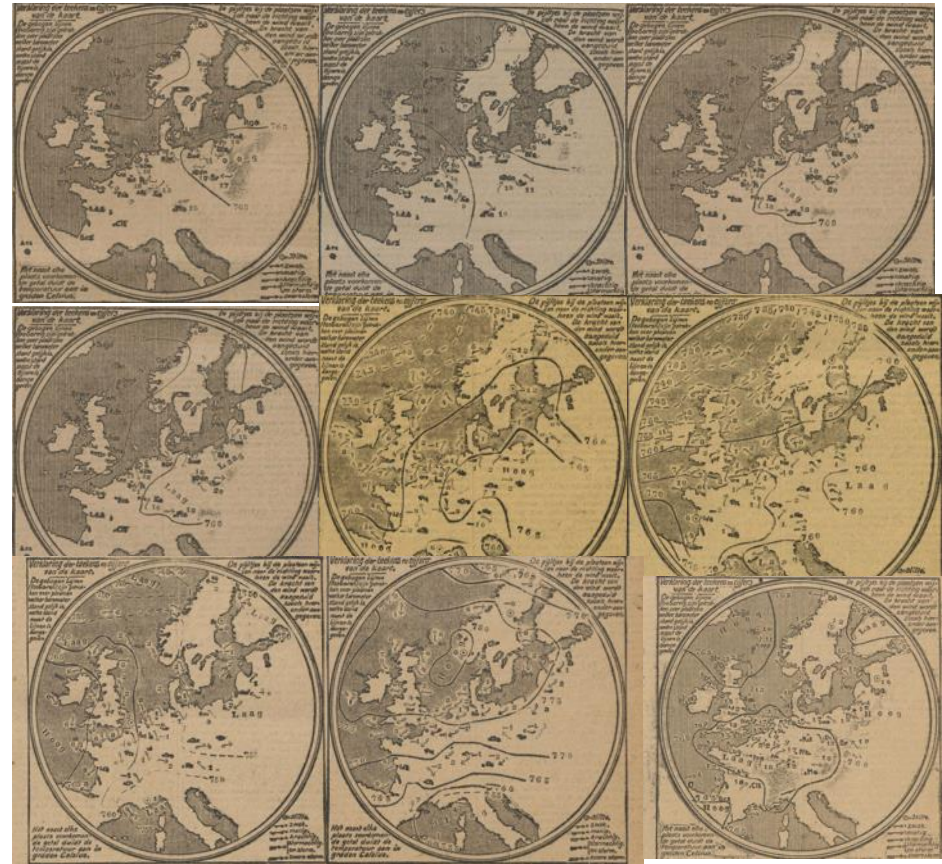
Pipeline



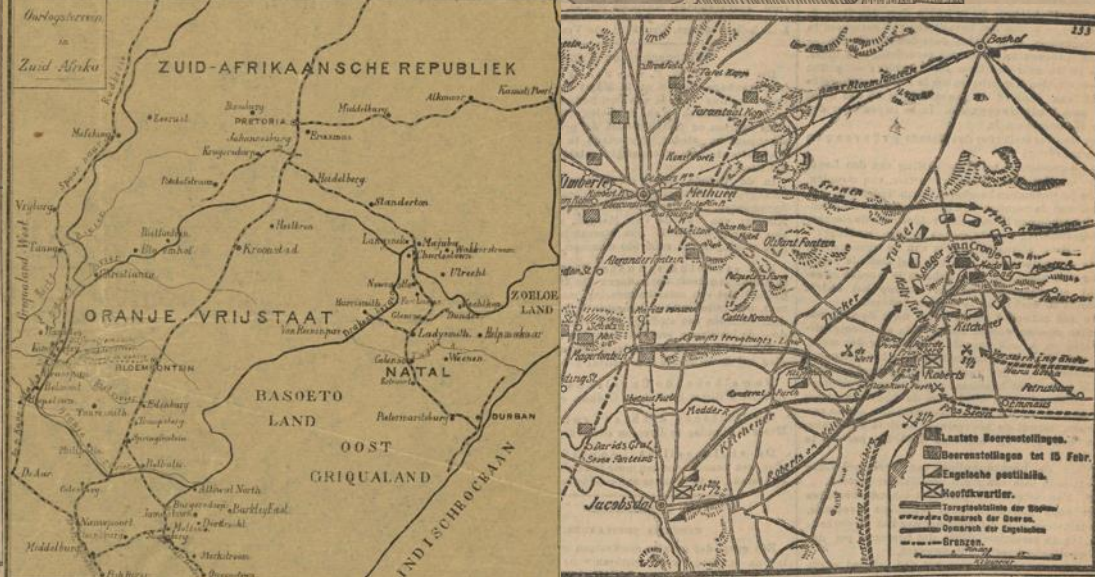
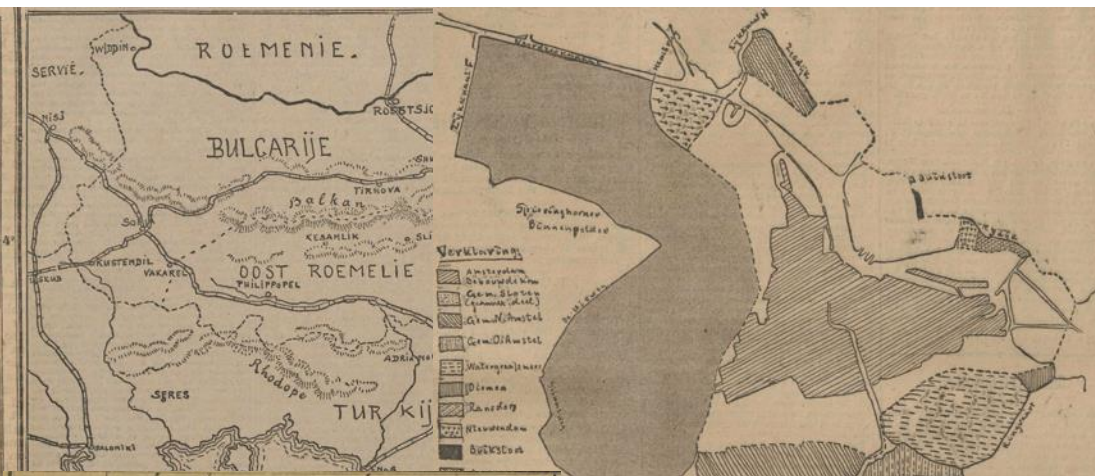
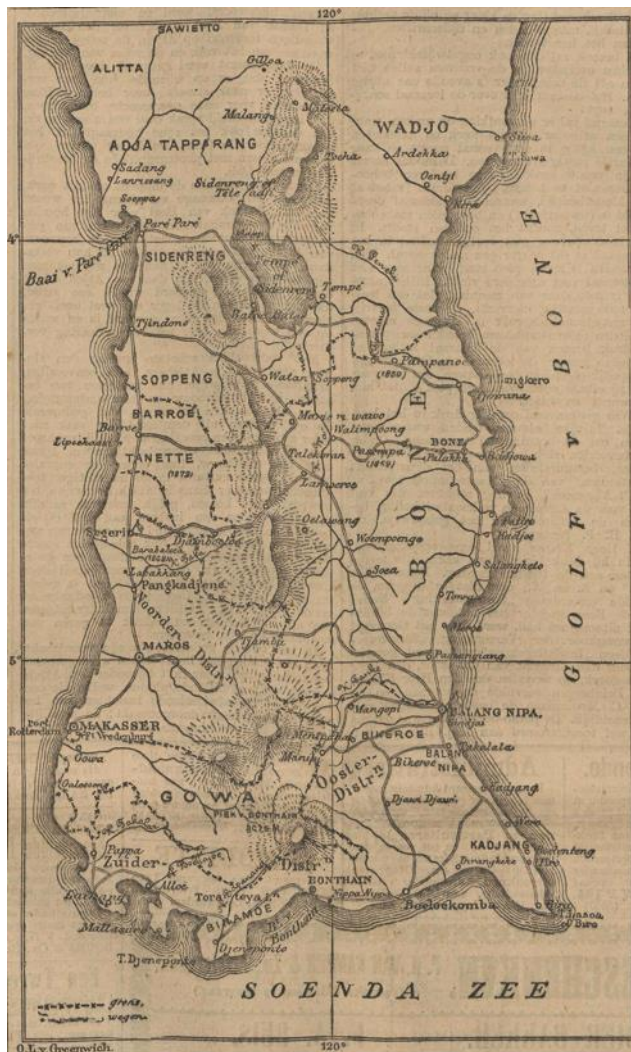




1900-1910



1915-1920



Een nabetrachting op de Oud Batavië-maskerade.



Een aanwinst voor het Koloniaal Museum.



Hooge Belangstelling!



De staking bij „Vrachtvaart“.

Illustratie van JORDAAN.



DE DIRECTIE: „Lieve schipper, heel mij over, naar dat ginsche dorpje haast...“

Zoo ging het tot dusver!....



In gerevensamening van D.D. toont dat Ordonnateur (ech niet allen van de kwade teken draagt)



Burger!
(In Den Haag.)



Aan boord!
(Roode Zee.)



Wéér burger!
(In Soerabaja)

Pipeline

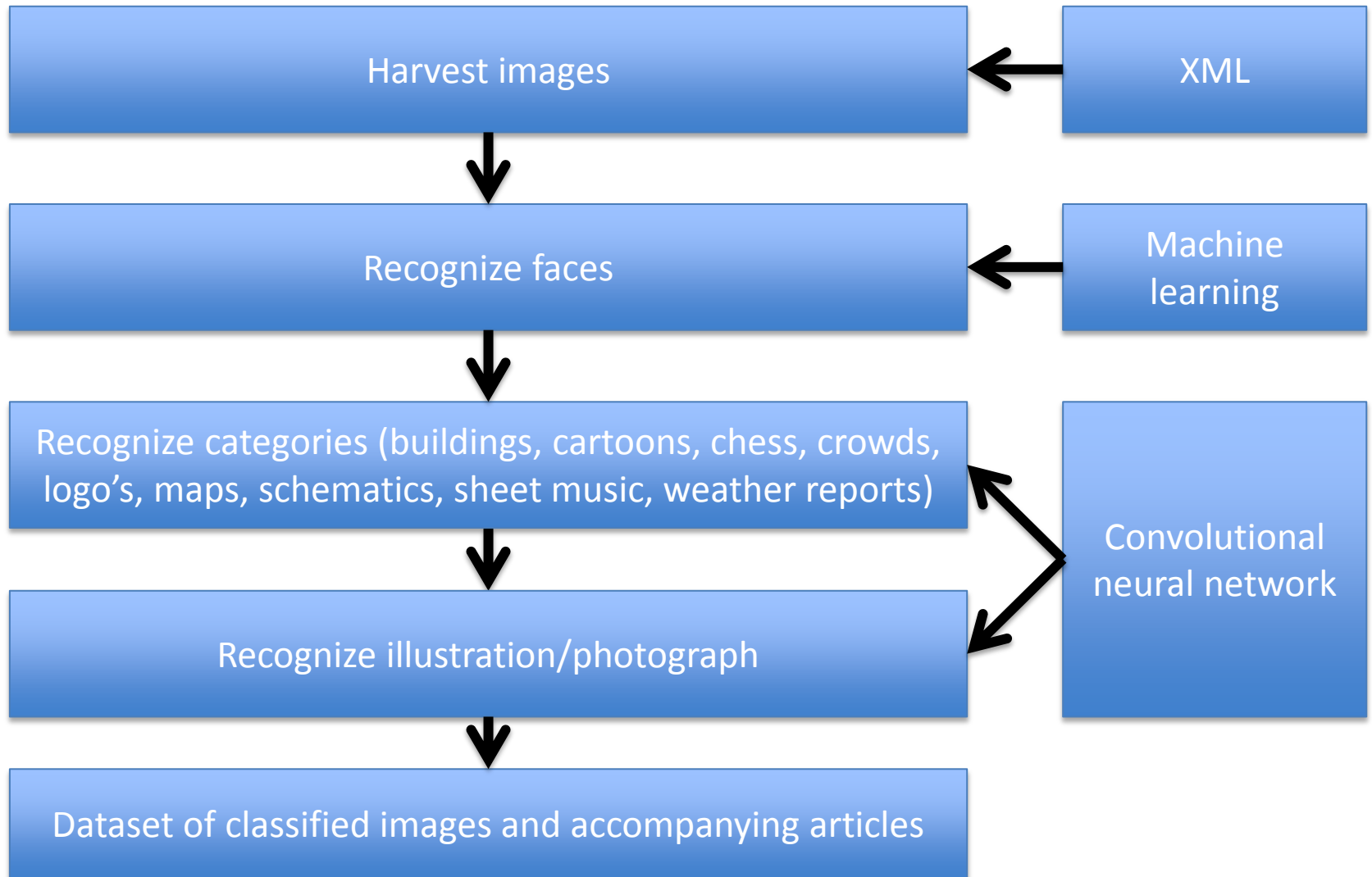


Image search query builder

Select date-range:

1860-01-01 1937-01-31

Select image type:

☒ Photo ☐ Drawing ☐ Photo or drawing

Select image category:

Building

Image with face:

☐ No ☐ Yes ☒ Yes or no

Text in article:

[http://www.kbresearch.nl/xportal?image_type="photo" and image_type="building" and date within "1860-01-01T00:00:00Z 1937-31-01T00:00:00Z"](http://www.kbresearch.nl/xportal?image_type=)

go



SHARADH WARD - AFRICAN TAILORS KIDNAPED BY THE BRITISH (IN N.Y.)

Thank you!

- Digital research at the National Library of the Netherlands → <http://lab.kb.nl/>
- My website → illustratednewspictures.tumblr.com

Thomas Smits
Radboud University
illustratednewspictures.tumblr.com
t.smits@let.ru.nl



@thomassmits

Radboud University



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