

**Exploring the Dust Bowl in Global Perspective for All Learners
National Council for the Social Studies 2019 Annual Conference
November 24 2019**

Mark Newman & Xiaoning Chen, National Louis University, Chicago, Illinois

AGENDA



INTRODUCTION:

- orientation to session, participants, prior knowledge and experience with inquiry, visual literacy for all learners (MN)
- orientation to dust bowls in the U. S. and in China and prior knowledge and experience on teaching it. (XC)

CHINA'S AGE OLD PROBLEM WITH SAND AND DUST STORMS:

- Brief orientation to inquiry strategy and visual literacy (MN)
- applying model to the various documents: reading for content (MN)
- what needs to be done to accommodate all learners: orientation to strategy and applicationL: choose what to do (XC)
- summing up findings (XC)

THE DUST BOWL OF THE THIRTIES IN THE U. S.:

- orientation to activity: groups to develop exercises using inquiry and all learner strategy (MN)
- group work stressing reading for content or other as desired.
- sharing and debriefing (XC)

CONCLUSION:

- dust bowls, visual literacy and all learners in perspective (MN and XC)
- thanks and fare thee well

401: Exploring the Dust Bowl in Global Perspective for All Learners

Austin Convention Center, 500 E. Cesar Chavez Street, Austin, TX 78701

Room: Exhibit Hall 5 Classroom D on Sunday November 24. 8:00am - 9:30am.

Exploring the Dust Bowl in Global Perspective for All Learners
National Council for the Social Studies Annual Conference, 2019
Drought and the U. S. Dust Bowl of the 1930s

Mark Newman & Xiaoning Chen, National Louis University

The Dust Bowl

Celebrated in song and movies, the Dust Bowl of the 1930s was one of the worst environmental disasters in U. S. history. It changed the character of agriculture in the region and precipitated a huge migration that altered the demographics of the United States.

Noting natural and human forces played roles, Jess Porter explained that the 1930s Dust Bowl was “the worst long-term ecological disaster in the history of the United States.” Recent scholarship noted that local, regional, national, and global factors contributed to the disaster.

Several authors have also suggested a pattern of wet and dry conditions has characterized the Great Plains region for over a century. They say the Great Plains region experiences drought conditions about every 20 years. The most severe occurred on the late 1880s, 1930s, and 1950s. As Anita Pointon comments shows, the 2014 drought caused great hardship.

The recent findings offer rich opportunities to enhance the study of the Dust Bowl in the classroom. Using an inquiry-based learning method, students can gain new perspectives on the geographic theme of region and evaluate human-environmental interaction. They can explore how and why settlement in the Great Plains epitomizes the historical concept of change and continuity.

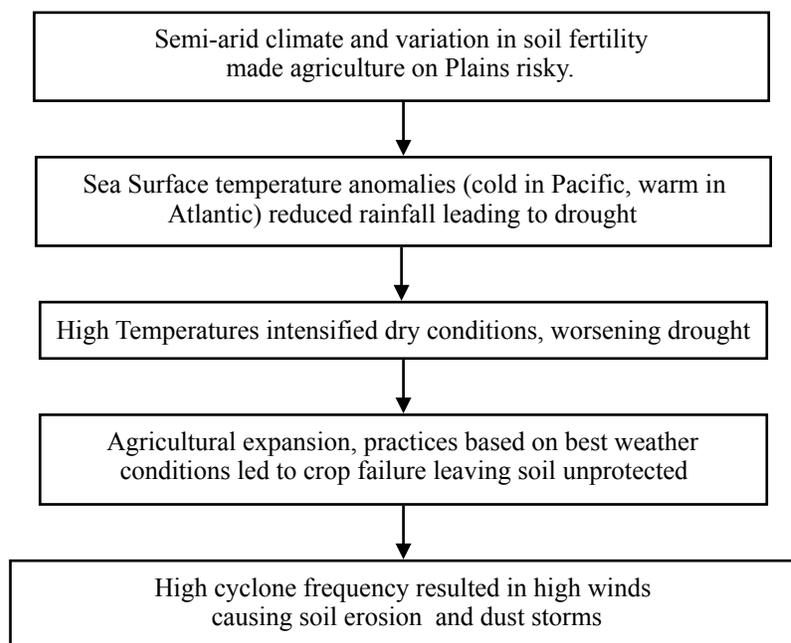


Dust Storm, Baca County, Colorado, circa 1936

“The dirt flows in, and it’s on your walls, and in your car. You can’t do anything.”

—Anita Pointon, Las Animas, Colorado, August 2014

Human-Environmental Causes of the Dust Bowl

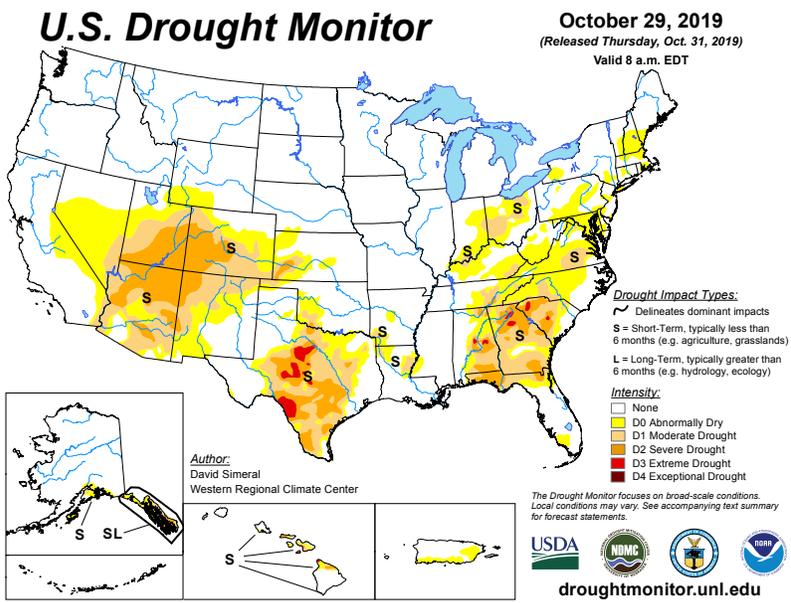


Drought in Perspective

When Dorothy stood in the doorway and looked around, she could see nothing but the great grey prairie on every side. Not a tree nor a house broke the broad sweep of flat country that reached the edge of the sky in all directions. The sun had baked the plowed land into a gray mass, with little cracks running through it. Even the grass was not green, for the sun had burned the tops of the long blades until they were the same gray color to be seen everywhere. . . .

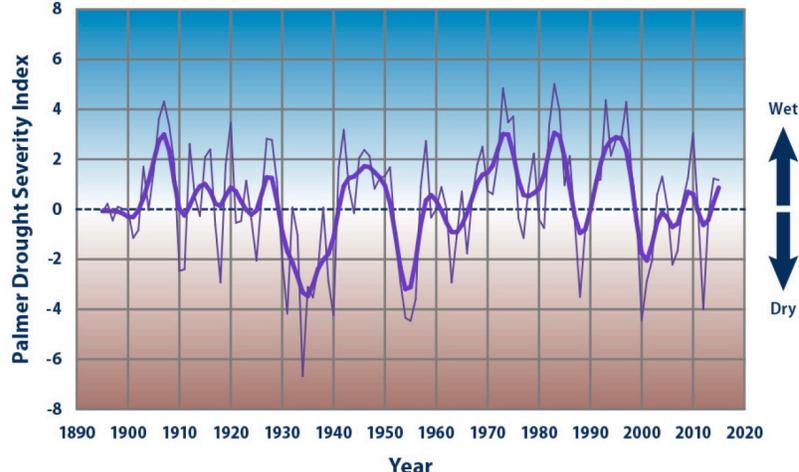
When Aunt Em came there to live she was a young pretty wife. The sun and wind had changed her, too. They had taken the sparkle from her eyes and left them a sober gray; they had taken the red from her cheeks and lips, they were gray also. She was thin and gaunt, and never smiled now

—L. Frank Baum, *The Wonderful Wizard of Oz*, 1900, p. 12



Global drought monitor 2018
<https://www.drought.gov/gdm/sites/drought.gov/gdm/files/gpcc-di-201910.jpg>

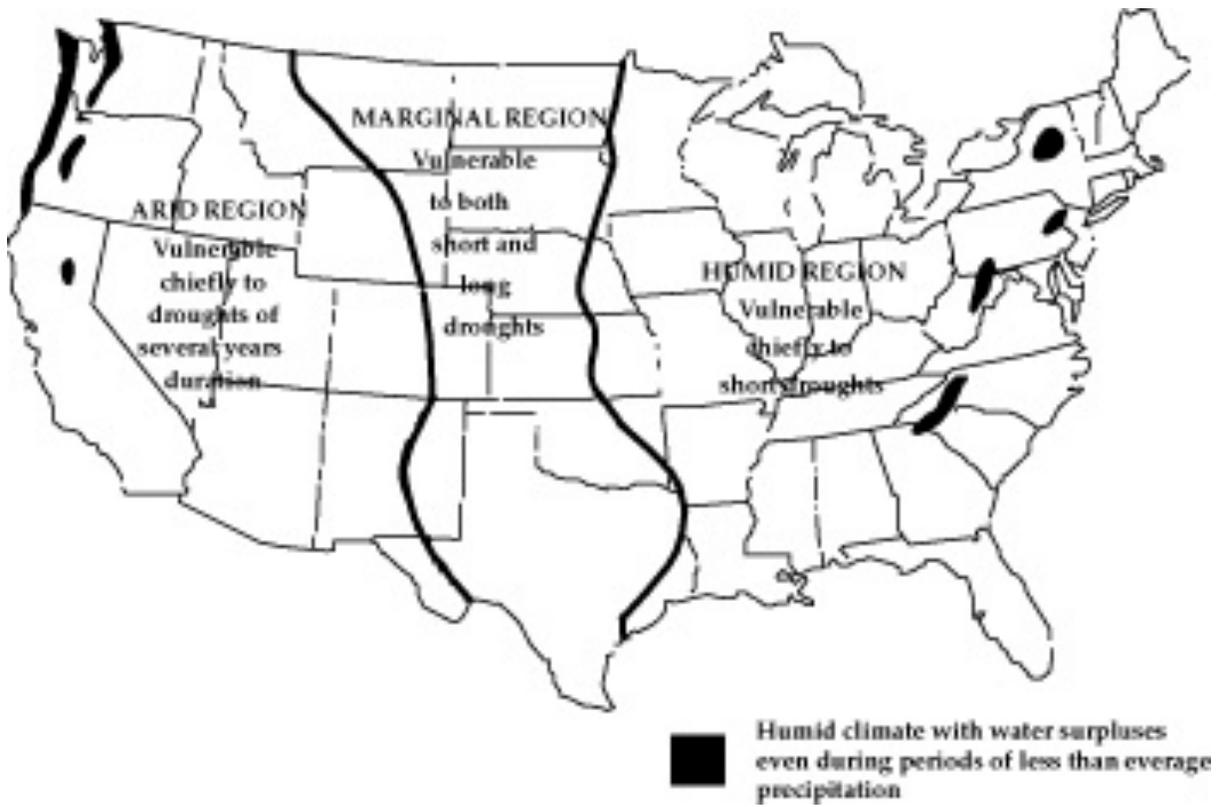
Figure 1. Average Drought Conditions in the Contiguous 48 States, 1895–2015



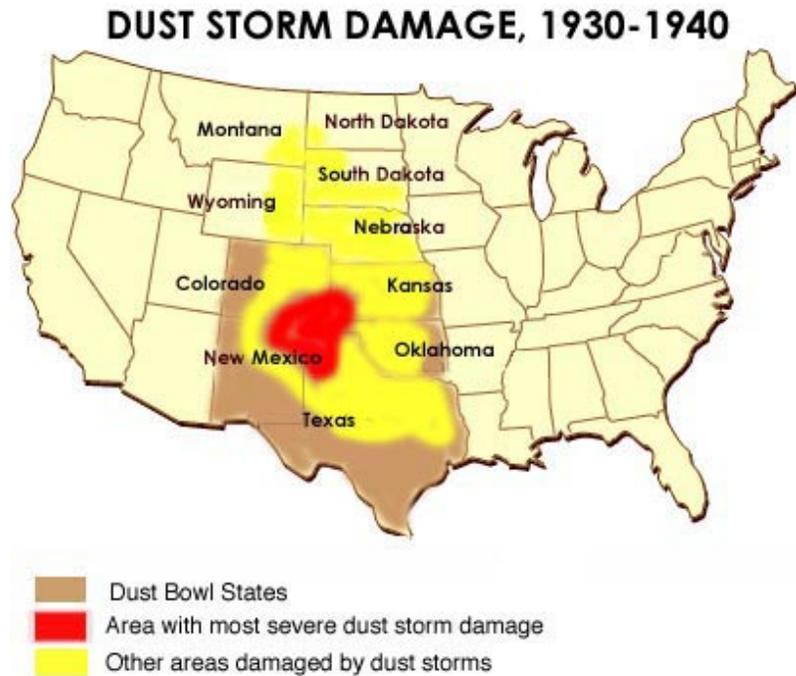
This chart shows annual values of the Palmer Drought Severity Index, averaged over the entire area of the contiguous 48 states. Positive values represent wetter-than-average conditions, while negative values represent drier-than-average conditions. A value between -2 and -3 indicates moderate drought, 3 to -4 is severe drought, and -4 or below indicates extreme drought. The thicker line is a nine-year weighted average.

Data source: NOAA, 2016⁵

Soil Erosion and Dust Storms



Moreland, Joe A., 1993, Drought: U.S. Geological Survey Open File Report 93-642, 2 p.



Living with the Dust Storms

We looked in the North and thought it was the Blue Norther comin' such a huge black cloud, just looked like a smoke out of a train stack or something. About 4'o'clock 1934. . . .

We lit the lamp and it was just so dark we couldn't see one another even with the lamp lit and we just choked and smothered. . . . We had to wet rags over our mouths just to keep from smothering. We had wet blankets and hung them over the windows.

The old timers said they'd never seen nothing like that. . . .

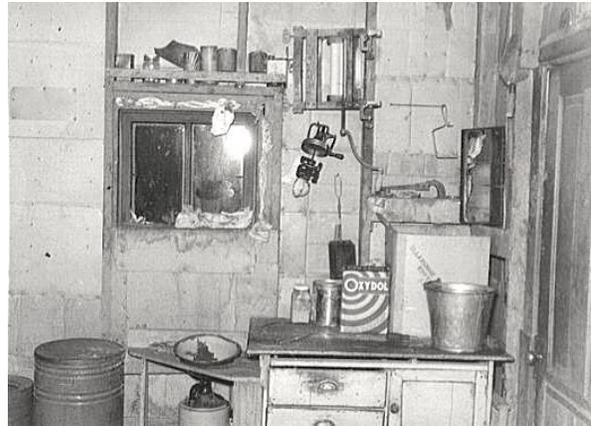
Our house was sealed but that dust come through somehow. Even those stucco houses. . . . You had to mop real good when it was over to get it out. You couldn't get it out no other way.

A real bad one would last for half a day. Sometimes it would be a week before we would see the sun. It was just dark. . . . Sometimes the cloud would look black and sometimes it would look red. It was according to which way the wind comes. . . .

We had cattle. . . . It killed them; they were out there in it. We would cut their lungs open and it looked just like a mudpack or something.

Mrs. Flora Robertson, migrant from Oklahoma to California

Interview, Shafter FSA camp,, August 5, 1940 Library of Congress, Voices from the Dust Bowl: The Charles L. Todd and Robert Sonkin Migrant Worker Collection, 1940-1941



Kitchen in dust storm area with window sealed with towels. Williams County, North Dakota, October 1937

Lee, Russell

<http://hdl.loc.gov/loc.pnp/fsa.8b38031>



Dust storm. Amarillo, Texas, April 1936

Rothstein, Arthur

<http://hdl.loc.gov/loc.pnp/fsa.8b27554>



Liberal (vicinity), Kan. Soil blown by dust bowl winds piled up in large drifts on a farm, March 1936

Rothstein, Arthur

<http://hdl.loc.gov/loc.pnp/ds.01322>

The Migrant Experience



Migrant family
arrives in San
Fernando,
California



Living in ditch
band camp,
Imperial
County
California (left)



18 year mother
from Oklahoma
in tent home,
California
(right)



Steel cabin
home in
camp,
Visalia,
California
(left)



Gardens,
Tulare,
California
(right)

Migrant Experience Photo Bibliography

Lange, Dorothea, Oklahoma dust bowl refugees. San Fernando, California
1935 June. Library of Congress Farm Security Administration - Office of War Information Photograph Collection.
hdl.loc.gov/loc.pnp/fsa.8b27316

Lange, Dorothea, Eighteen year-old mother from Oklahoma, now a California migrant
1937 Mar. Library of Congress Farm Security Administration - Office of War Information Photograph Collection
hdl.loc.gov/loc.pnp/fsa.8b31764

Lange, Dorothea, Drought refugee living in a ditch bank camp. Imperial County, California
1937 Mar. Library of Congress Farm Security Administration - Office of War Information Photograph Collection.
hdl.loc.gov/loc.pnp/fsa.8b31809

Rothstein, Arthur, Sanitary steel cabins are provided for each family. Tulare migrant camp. Visalia, California
1940 Mar. Library of Congress Farm Security Administration - Office of War Information Photograph Collection.
hdl.loc.gov/loc.pnp/fsa.8b16013

Rothstein, Arthur, Gardens at labor homes add to incomes. Tulare migrant camp. Visalia, California
1940 Mar. Library of Congress Farm Security Administration - Office of War Information Photograph Collection.
hdl.loc.gov/loc.pnp/ppmsca.31899

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Dust and Sand Storms in China over Time and Space
Mark Newman & Xiaoning Chen, National Louis University

Dust and Sand Storms in China over Time

Written on bamboo strips, the first official record of a dust storm in China dates back to the Han Dynasty (219 BCE-206 CE). It was described the destruction of a stage coach. It is believed dust storms have occurred in north and northeast China for hundreds of thousands of years. Between 1464 and 1913, one study estimates 1180 dust storms occurred. (Hui, et al, 2013)

According to one study, as much as 1/3 to 1/2 of annual global dust emissions come from various desert in China. The Takliman (Turkish for place of no return) desert in the Tarim basin is the major source of dust storm followed by the Gobi in Mongolia.

A major problem is the increase in the storms. Fifty years ago, they occurred every seven or eight years. Now, they are an annual phenomenon. Three quarters of the dust storms occur in spring. April has had the most dust storms followed by March. Over one-sixth happen in winter.

One of the worst storms hit Beijing on May 4, 2017. It originated in Mongolia and China's Inner Mongolia Autonomous region. In total, the storm affected a large area of northern China from Xinjiang province in the west to Heilongjiang in the east.

The Chinese government reported 500 micrograms of small breathable particles per cubic meter. The maximum safe level is 25 micrograph per cubic meter. Children and the elderly were told to stay indoors. The storms have been connected to respiratory illnesses and epidemics.

The Chinese government has spent billions of dollars to plant forests to alleviate conditions with little effect.



Dust storm Beijing and northern China, May 4, 2017

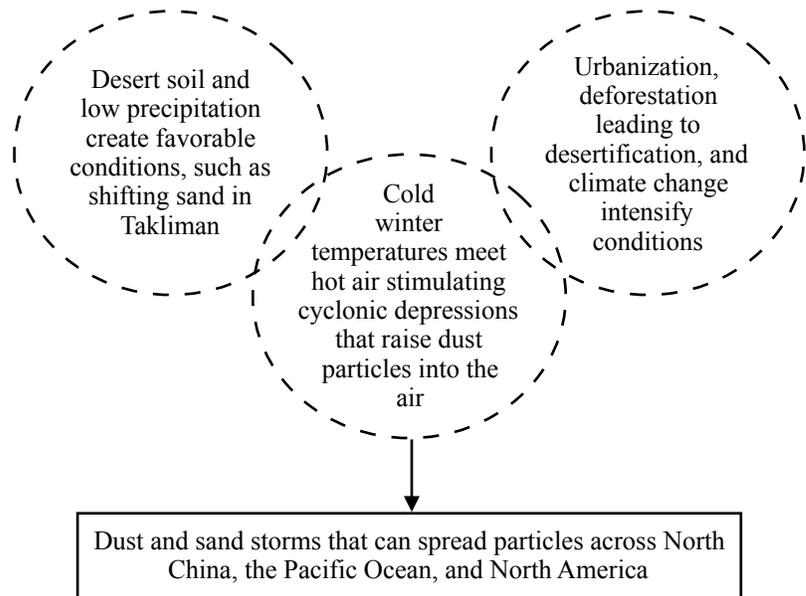
<https://www.youtube.com/watch?v=phJTHyojCWg>

“It feels just like you’re breathing in dust into your stomach.”

—Zhang Liuliu

https://www.youtube.com/watch?v=WJ_h4fUUupLQ

Human-Environmental Causes of the Storms



Dust and Sand Storms in China over Time and Space

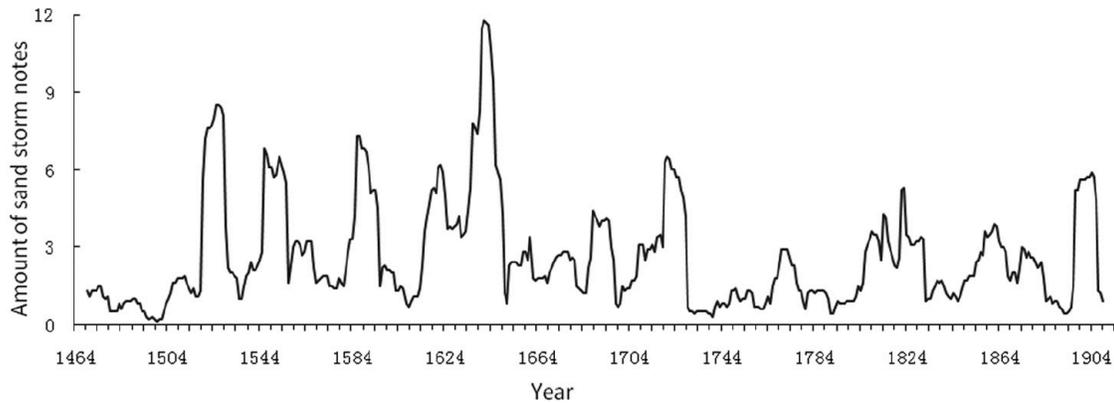


Figure 1: North China Plain:
10-Year Running Mean of Dust Storms, 1464-1904

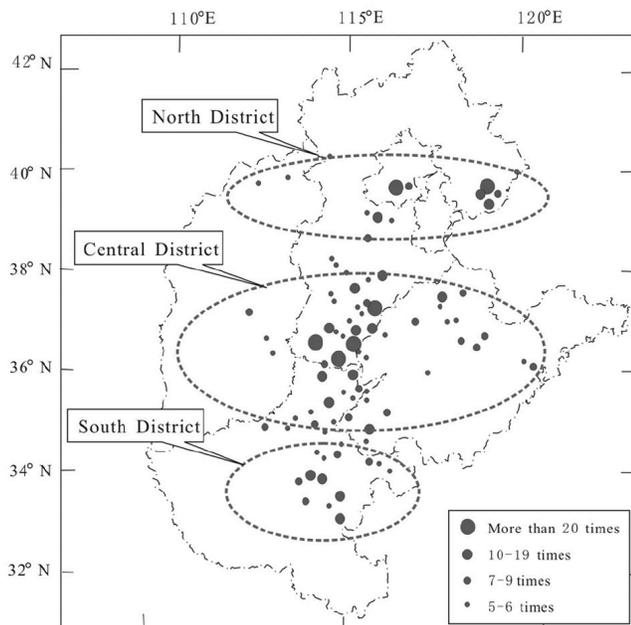


Figure 2: China:
Dust Storm Spatial Distribution

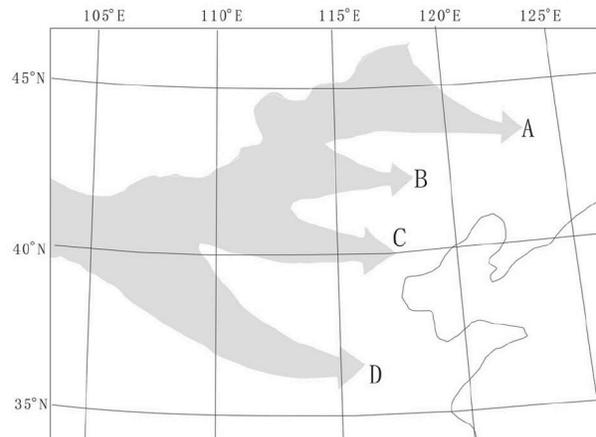


Figure 3: China:
Paths of Modern Dust Storms

Resources:

Hui, D. SWei-Feng, J. Yi-Fong, C. & Shi-Guang, S. (2013)The temporal and spatial distribution of dust storms on the North China Plain, ad 1464–1913 *The Holocene* 23(5)6.

Si-Chee, T. (2019). Outbreaks of Asian Dust Storms: An Overview from Satellite and Surface Perspectives. *Climate Policy Watchers: Atmospheric Sciences*. <https://www.climate-policy-watcher.org/atmospheric-sciences/outbreaks-of-asian-dust-storms-an-overview-from-satellite-and-surface-perspectives.html>.

Dust Storms Blanket Beijing and Northern China, *New York Times*, May 5, 2017.

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Visual Literacy Inquiry Strategy

Mark Newman & Xiaoning Chen, National Louis University

INTRODUCTION:

The inquiry strategy described below focuses on pre-reading, reading for content, and analyzing findings. It assumes some prior experience in using the strategy to study varied primary source documents.

Pre-reading

1. Gaining Context: access prior knowledge of topic, survey document to get big picture of content and to identify type of document.
2. Provenance: examine document and bibliography to identify creator title, date, where published and possibly place of publication.
3. Identify new or difficult vocabulary and define as needed.
4. Pose compelling and supporting questions to guide reading and analysis of the document.

Reading for content

1. Identify items: Closely examine document and identify important items (people, places, things, aspects of charts or table, etc.). Make list of items.
2. Describe items: Describe what items look like, stressing g important features.
3. Organize information: Categorize items using major types of items, features, etc. Make a concept map, table, etc. of organizer
4. Summarize information: Using categories, prioritize most important components of document. Write a 1-2 sentence summary of findings.
5. Describe message: Use bibliographic information and summary, write a one sentence description of the message of the document.

(NOTE: some questions will be answered and others posed and possibly answered during this stage.)

Analyzing

1. Answer remaining questions, constructing thesis statement (answer to compelling question).
2. Making meaning: explain what the implications of the findings and message of the document are to the topic of study.
3. Assess significance of visual and findings to topic of study, answering query: what do we care?

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National Louis University

Inquiry Model with All Learner Support

Pre-Reading

- Gaining context: Activate or build prior knowledge on topic and visual
- Provenance: Make sense of parts and functions of bibliographic information
- Academic vocabulary: Preteach key vocabulary; provide access to L1, visuals, or teach vocabulary strategies to support comprehension
- Inquiry questions: Provide sample guiding questions and key words to ask questions (e.g., 5Ws); differentiate supporting and compelling questions

Reading

- Identifying items: Multiple ways to identify items (e.g., circling the items in the visual, using the provided word bank, correlating names of items in the visual with those in the narrative, use of L1)
- Describing items: Provide a list of descriptive words and directional phrases, sentence frames, use of L1
- Organizing information: Sort pictures or words that represent the items into categories with peers, complete graphic organizer
- Summarizing information: Work with peers to orally summarize information; use sentence stems and categories on the graphic organizer to write a summary that answers some inquiry questions (e.g., 5Ws).
- Describing message: Model and practice how to use information from different sources to construct the message

Analyzing

- Synthesizing information: Background knowledge on the structure of writing; provide sentence frames to construct thesis statement
- Making meaning: Combine information from different sources to gain content knowledge; use graphic organizers and group work to provide scaffolding
- Assessing significance: Connect the topic of study to students' life