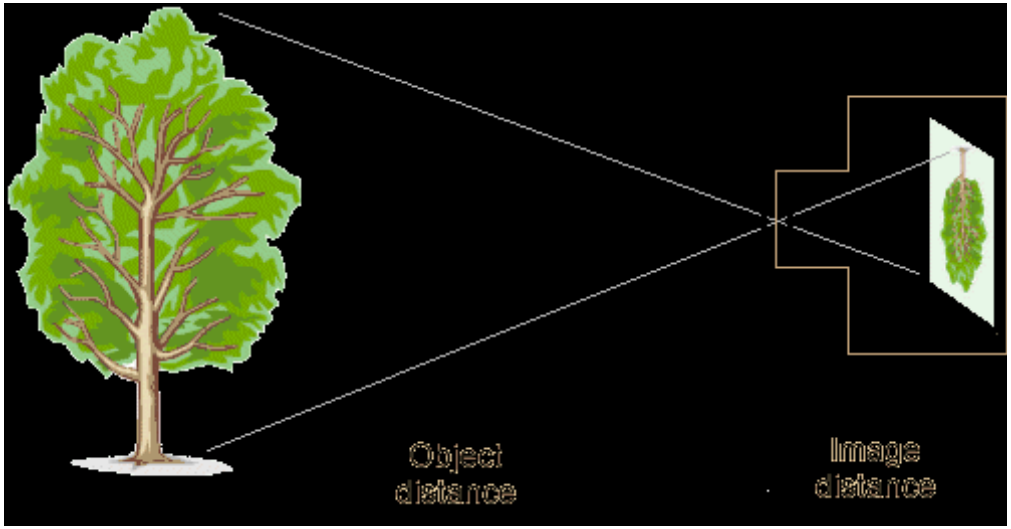
Lecture 6A

LENSES, FOCAL LENGTH, & PORTRAITS

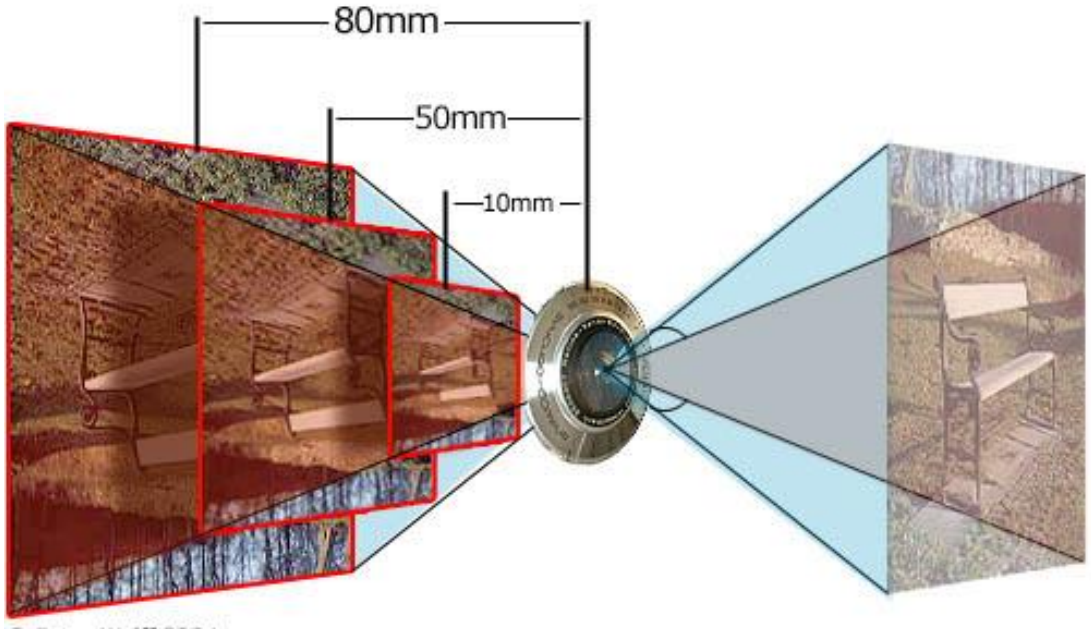
What is focal Length?

- Very simply, it is the **distance from the lens to the film**, when focused on a subject at infinity. In other words, focal length equals image distance for a far subject.



What is Focal Length?

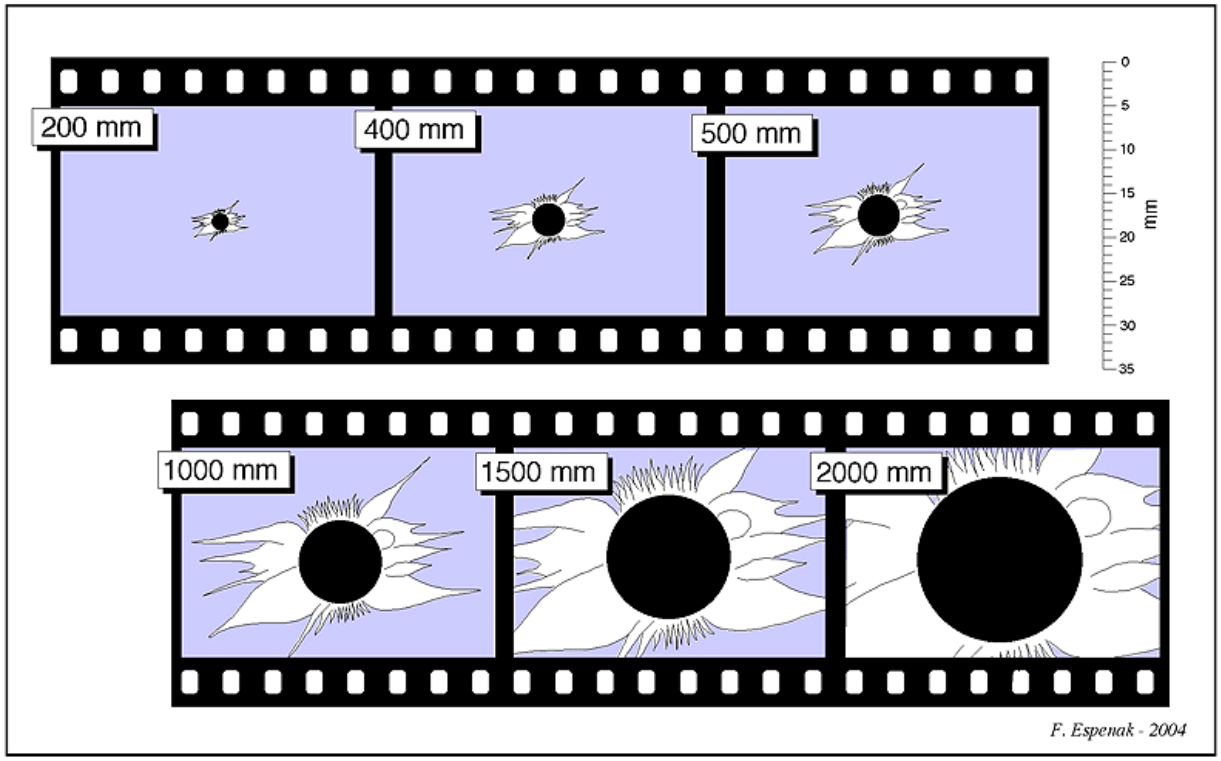
- The **focal length of a lens determines its angle of view,** and thus also how much the subject will be magnified for a given photographic position.
- **Wide angle lenses** have small focal lengths, while **telephoto lenses** have larger corresponding focal lengths.



Focal Length Vs. Image Size:

Camera Positioned at Same Spot in Every Image with Different Lenses

FIGURE 24 - LENS FOCAL LENGTH VS. IMAGE SIZE FOR ECLIPSE PHOTOGRAPHY



Focal Length Vs. Image Size:

Camera Positioned at Same Spot in Every Image with Different Lenses

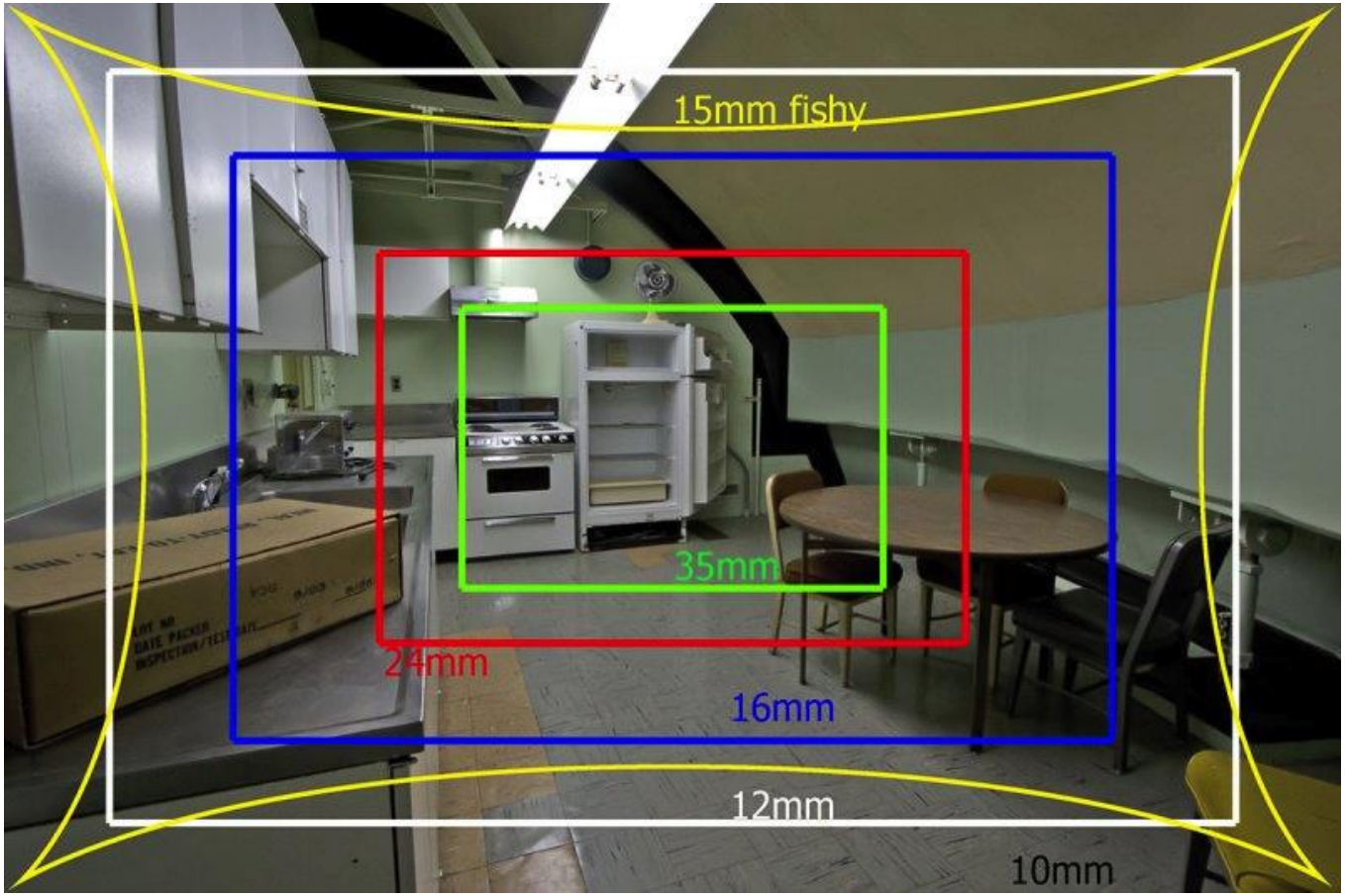
24 mm Lens

50 mm Lens

100 mm Lens

200 mm Lens

Focal Length & Magnification View of Same Scene



Two things affect Perception of Sharpness:

-Aperture (Shallow or Deep Focus)

&

-Focal Distance

Shallower Depth of Field:

- Larger apertures (smaller F-stop number) and closer focal distances (70mm-300mm) produce a shallower depth of field

Longer Focal Lengths

- may also appear to have a shallower depth of field because they enlarge the background relative to the foreground (due to their greater angle of view). This can make an out of focus background look even more out of focus because its blur has become enlarged..

F/8

f/5.6

f/2.8

200mm lens

Focal Length & Perspectives

- **Wide angle lens** exaggerates or stretches perspective
- **Telephoto lens** compresses or flattens perspective.

Note how the subjects within the frame remain nearly identical-- therefore requiring a closer position for the wider angle lens. The relative sizes of objects change such that the distant doorway becomes smaller relative to the nearby lamps.

WIDE ANGLE

TELEPHOTO

Focal Length & Portraits

- **For Portraits:** Ideal focal length ranges from 70-100mm.
- Utilizing 6-10 feet of working distance between the camera and the subject.

Focal Length & Portraits

Typical focal lengths and their 35mm format designations:

20mmSuper	Wide Angle
24mm - 35mm	Wide Angle
35-50mm	Normal Lens
80mm - 300mm	Telephoto
300mm	Super Telephoto

In 35mm photography, lenses with a focal length of 50mm are called "normal" because they work without reduction or magnification and create images the way we see the scene with our naked eyes (same as picture angle of 46°).

Zoom Lens
Vs.
Prime Lens

- Zoom Lens: Has a range of focal lengths in one lens
- Prime Lens: Has one fixed focal length lens

- An inexpensive prime lens can generally provide as good (or better) image quality as a high-end zoom lens.

LOUDEN

Zoom Lens VS. Prime Lens

Zoom Lens

- List a range of maximum aperture
- Versatility for dynamic shooting

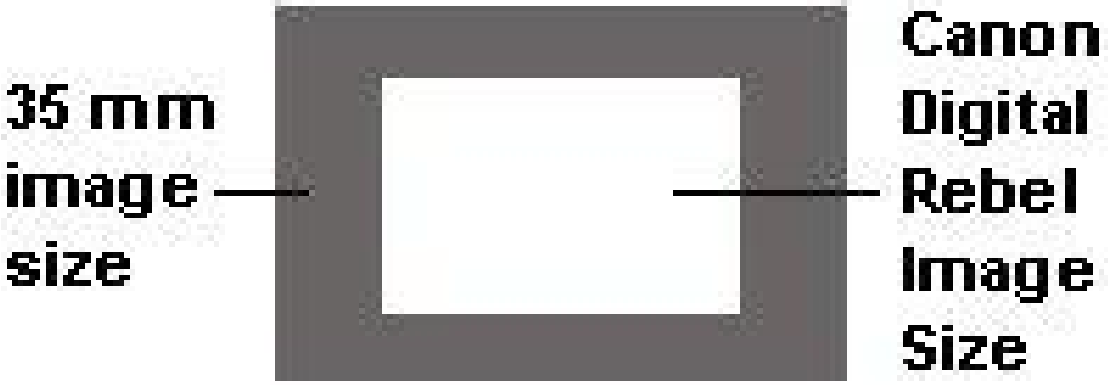
Vs.

Prime Lens:

- Primary advantages of prime lenses are in cost, weight and speed.
- An inexpensive prime lens can generally provide as good (or better) image quality as a high-end zoom lens.
- Offer better light-gathering ability (larger maximum aperture) than the fastest zoom lenses-- often critical for low-light sports/theater photography
- Portrait and indoor sports/theater photography often requires lenses
- with very large maximum apertures, in order to be capable of a narrower depth of field or a faster shutter speed
- Faster and more accurate auto-focusing (good for night and sports)

Sensor Size in Digital Cameras & Lens Focal Length

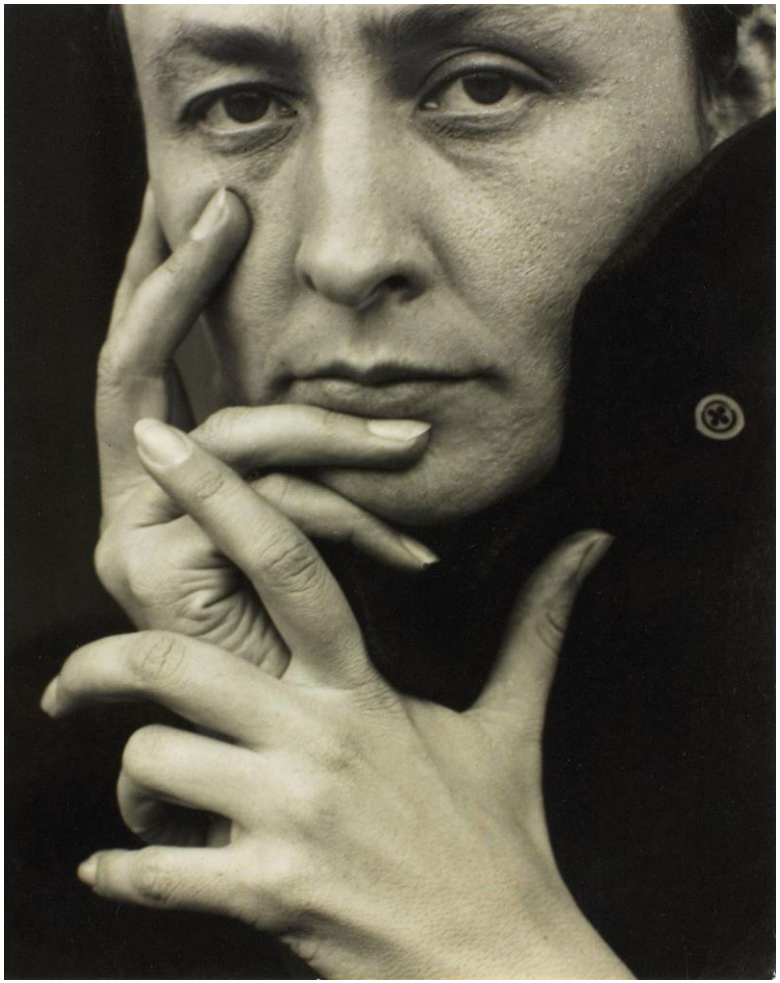
Since the image size of the Canon Digital Rebel is smaller than the 35mm film format, the equivalent lens focal length increases by 1.6x.



Portraiture in Photography

Be creative when taking your photographs for the portrait assignment. You should experiment with various lens types too.

Alfred Stieglitz



Georgia O'Keeffe, hands 1918

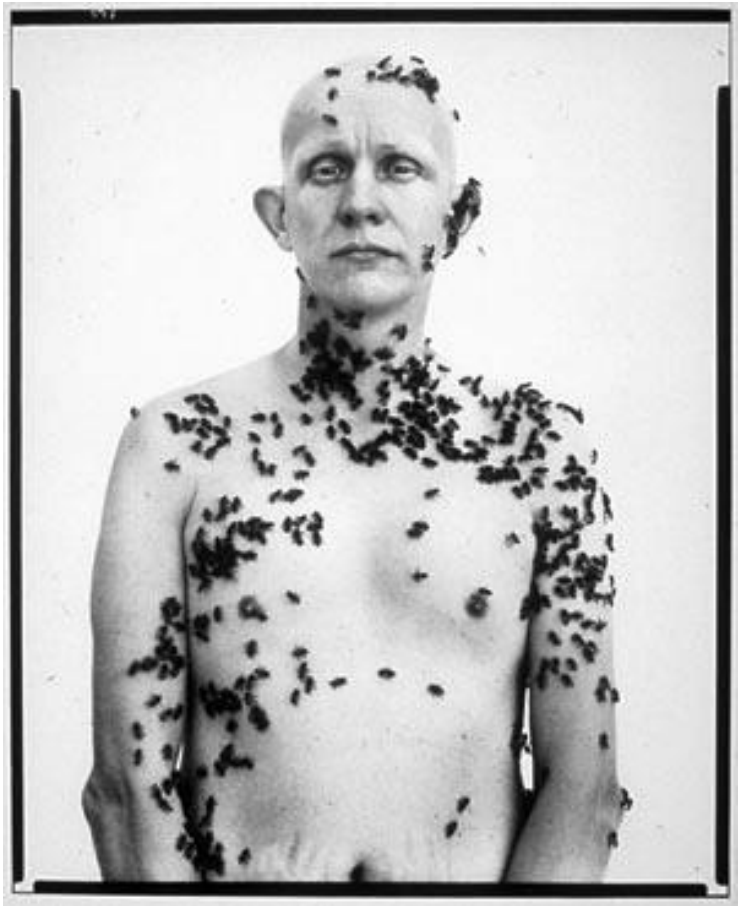
Richard Avedon

Nastassja Kinski and the Serpent. Very Eve and the Garden of Eden.

Richard Avedon

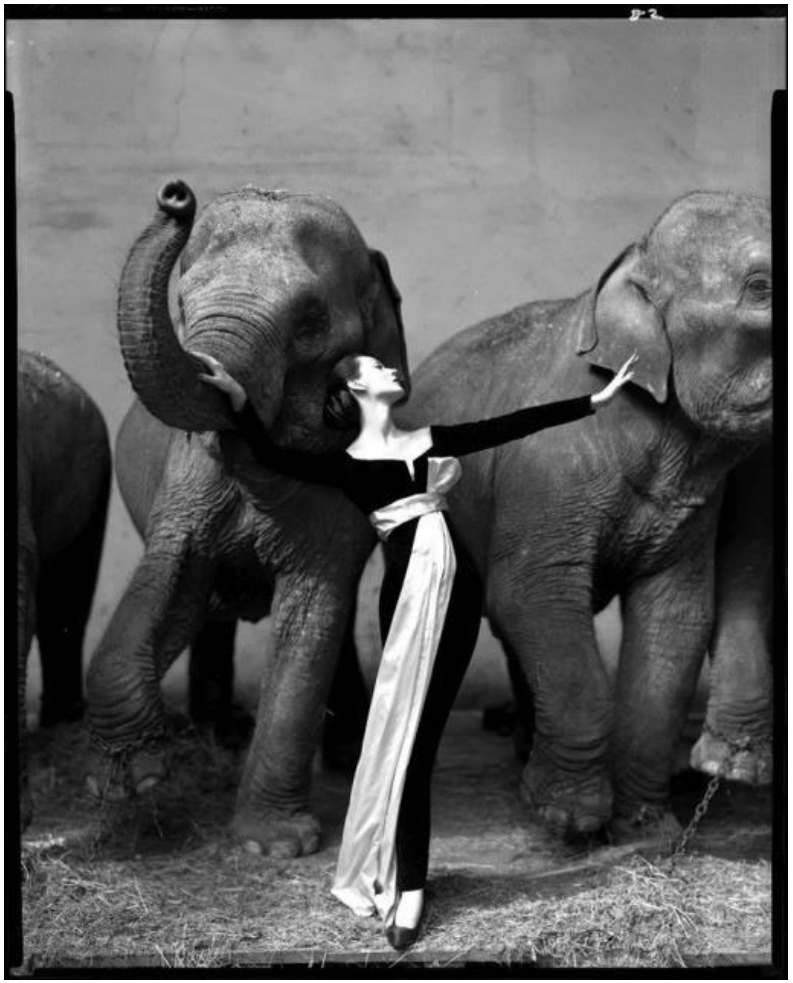
In the American West Series

Richard Avedon



In the American West Series

Richard Avedon



Dovima with the Elephants

Sally Mann

Sally Mann

Sally Mann

Candy Cigarette

Diane Arbus

Child with a toy hand grenade in Central Park, N.Y.C., 1962

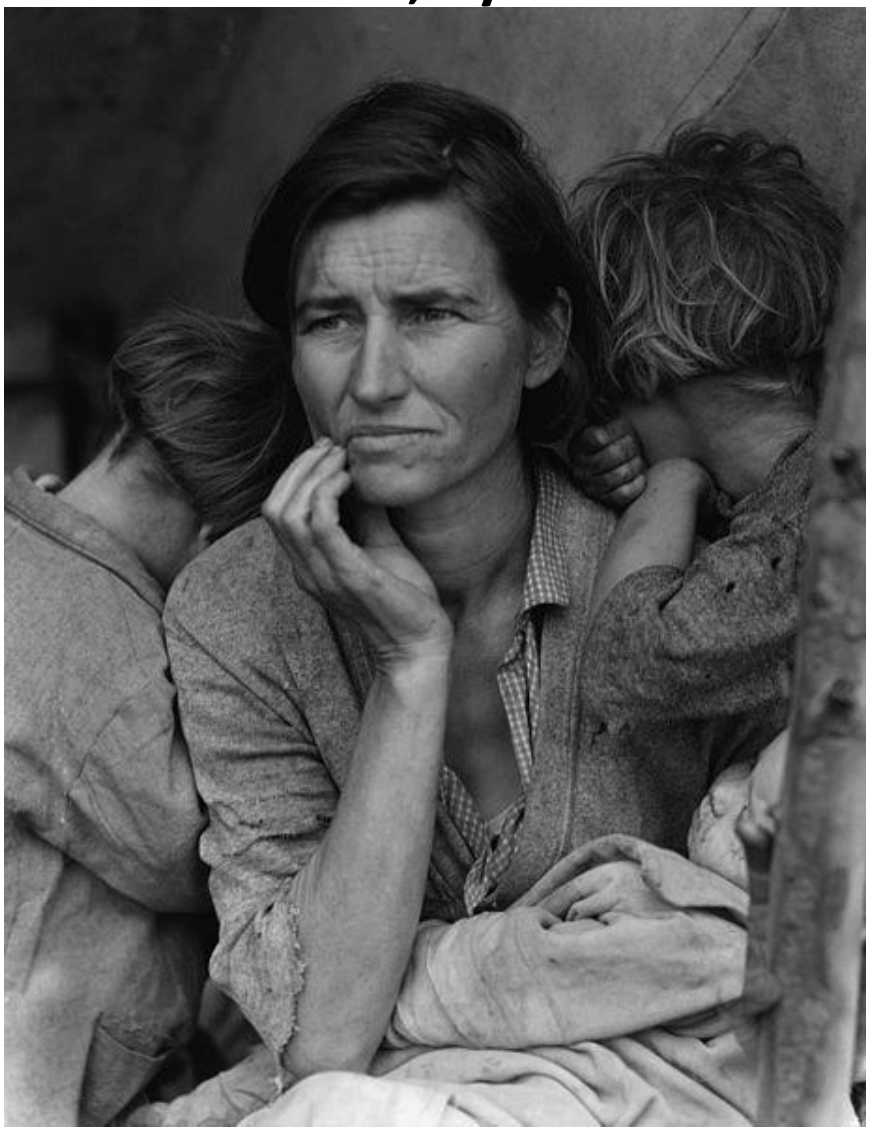
Diane Arbus

Nudist camp one morning, N.J, 1963.

Diane Arbus

A young man in curlers at home on West 20th Street, N.Y.C. 1966

Portrait:
Migrant Mother 1936, by Dorothea Lange



Caption:

"Destitute peapickers

In California; a 32 year old mother

of seven children. February 1936."

<u>Description of Photo:</u>

A black and white

Photograph of a woman with her hand touching her face looks into the distance as two of her children lean on either sides of her shoulder. A baby lays in her lap. Her clothes are tattered.

Photographic Analysis Method

Photograph Analysis Guide

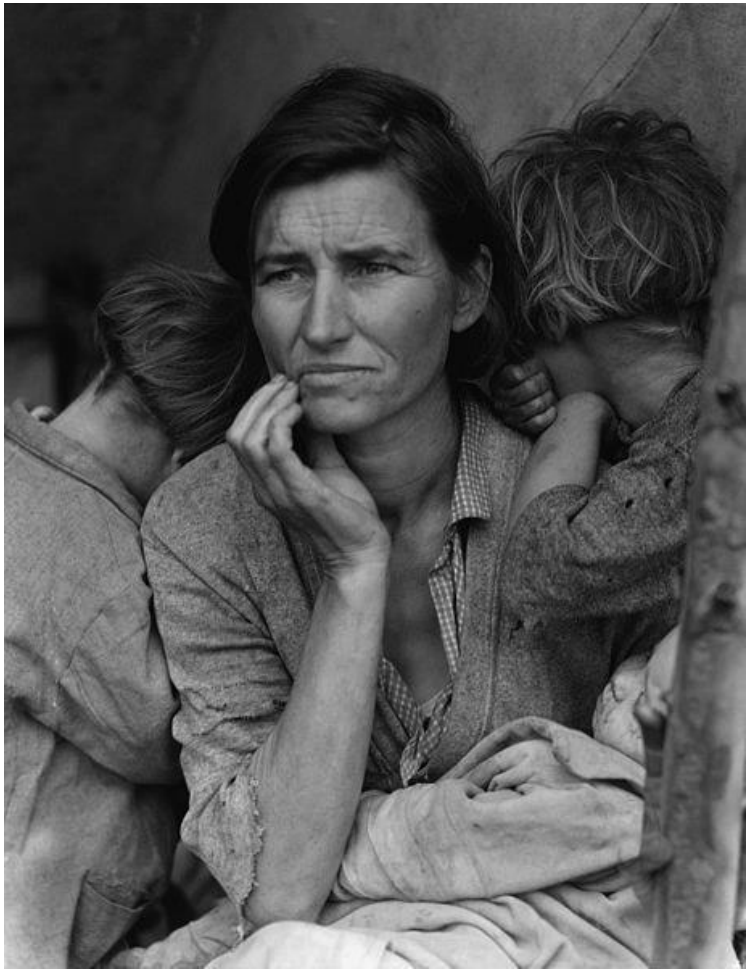
Step 1—Observe entire photograph for 1-2 minutes. What is the photograph showing?

Step 2—Observe only ¼ of the photograph at a time. Identify the following:

Upper Left	Upper Right
People: Objects: Activities: Questiors: Possible Answers:	People: Objects: Activities: Questions: Possible Answers:
Lower Left	**Lower Right**
People: Objects: Activities: Questiors: Possible Answers:	People: Objects: Activities: Questions: Possible Answers:

Step 3—Where would you go to find the answers to the questions?

Step 4—What story does the phctograph tell? (*Answer on another sheet of paper*)



Upper Left

Photographic Analysis Method

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Step 3—Where would you go to find the answers to the questions?

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Photographic Analysis Method – Look at upper Left side of photo and answer questions.

Photographic Analysis Method

Photograph Analysis Guide

Step 1—Observe entire photograph for 1-2 minutes. What is the photograph showing?

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Upper Left	Upper Right
People: Objects: Activities: Questiors: Possible Answers:	People: Objects: Activities: Questions: Possible Answers:
Lower Left	**Lower Right**
People: Objects: Activities: Questiors: Possible Answers:	People: Objects: Activities: Questions: Possible Answers:

Step 3—Where would you go to find the answers to the questions?

Step 4—What story does the phctograph tell? (*Answer on another sheet of paper*)

Look at upper Right side of photo and answer questions.

Photographic Analysis Method

Photograph Analysis Guide

Step 1—Observe entire photograph for 1-2 minutes. What is the photograph showing?

Step 2—Observe only ¼ of the photograph at a time. Identify the following:

Upper Left	Upper Right
People: Objects: Activities: Questiors: Possible Answers:	People: Objects: Activities: Questions: Possible Answers:
Lower Left	**Lower Right**
People: Objects: Activities: Questiors: Possible Answers:	People: Objects: Activities: Questions: Possible Answers:

Step 3—Where would you go to find the answers to the questions?

Step 4—What story does the phctograph tell? (*Answer on another sheet of paper*)

Look at lower right side of photo and answer questions.

Lower Right

Photographic Analysis Method

Look at lower
Left side of photo and answer questions.

Lower Left

Photograph Analysis Guide

Step 1—Observe entire photograph for 1-2 minutes. What is the photograph showing?

Step 2—Observe only ¼ of the photograph at a time. Identify the following:

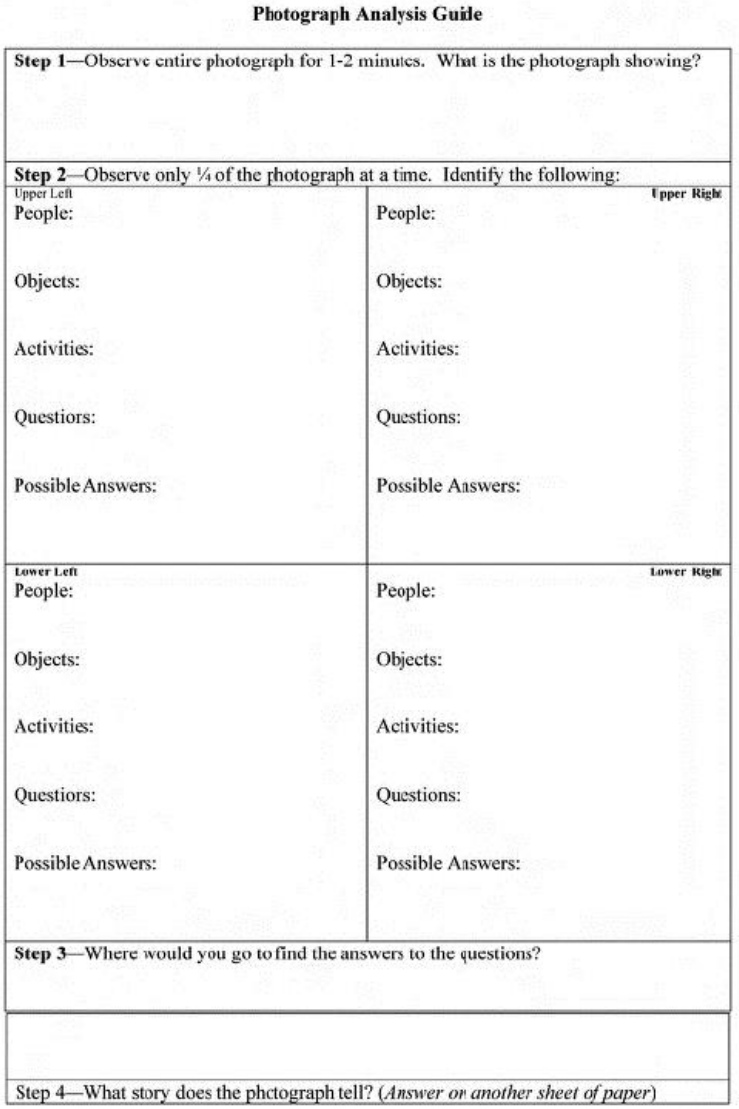
Upper Left	Upper Right
People:	People:
Objects:	Objects:
Activities:	Activities:
Questiors:	Questions:
Possible Answers:	Possible Answers:
Lower Left	**Lower Right**
People:	People:
Objects:	Objects:
Activities:	Activities:
Questiors:	Questions:
Possible Answers:	Possible Answers:

Step 3—Where would you go to find the answers to the questions?

Step 4—What story does the phctograph tell? (*Answer on another sheet of paper*)

Photographic Analysis Method

- What did you notice in the photograph from this analysis Method of the Migrant Mother Image?



Photograph Analysis Guide

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Objects:	Objects:
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Questiors:	Questions:
Possible Answers:	Possible Answers:
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Afghan Girl Photograph

Steve McCurry

Afghan Girl, Refugee, 1982

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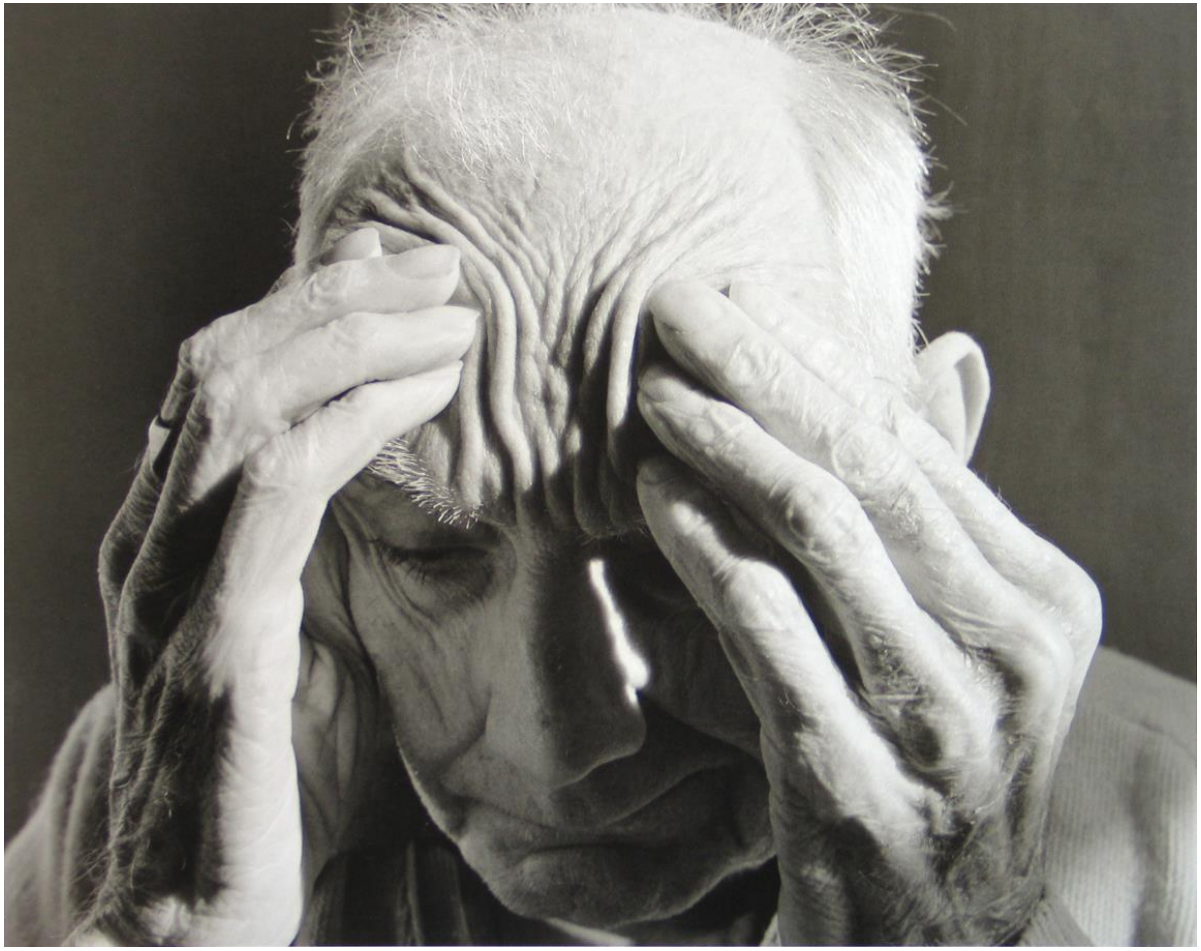
FM2 camera and Nikkor 105mm F2.5 lens

The Afghan Girl photograph is another iconic image that gained great acclaim when it was published in National Geographic Magazine. She was a victim of the Soviet conflict in Afghanistan. Both of her parents died and it was a harsh struggle to survive.

Similar to the Migrant Mother, Sharbat Gula's identity was sought out years later.

Nicholas Nixon



F.K., Boston, 1984

Nicholas Nixon

- Watch this video about his newer work:

- http://www.youtube.com/watch?v=Y4aKrMdzmJw (close captioned)

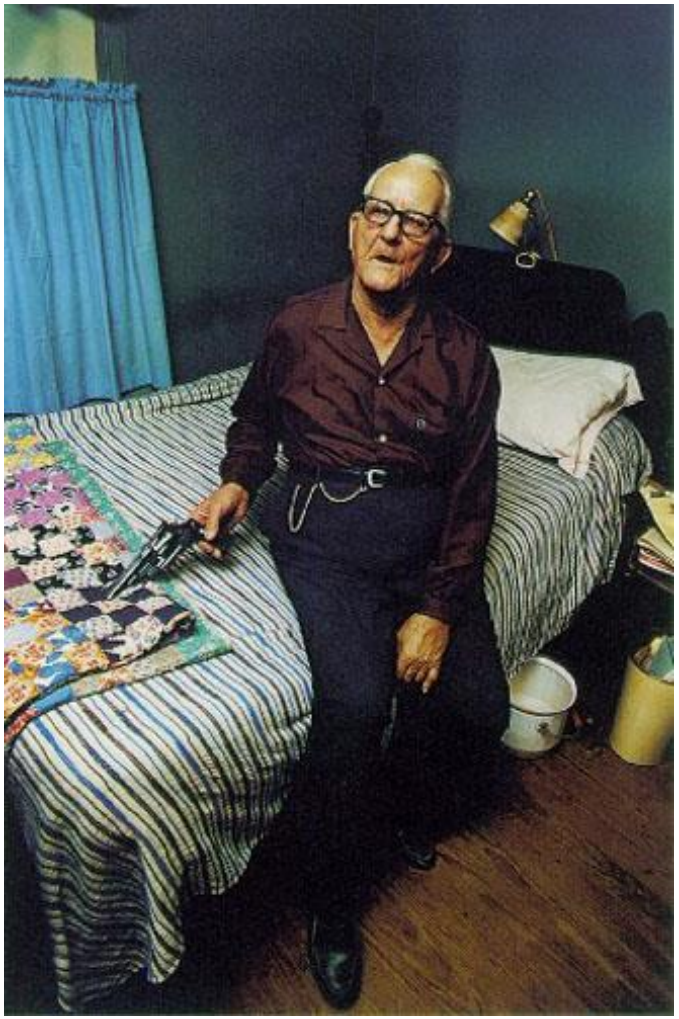
Nicholas Nixon

C.C., Boston, 1983

Nicholas Nixon

K.W., Boston, 1985

William Eggleston



Graciela Iturbide

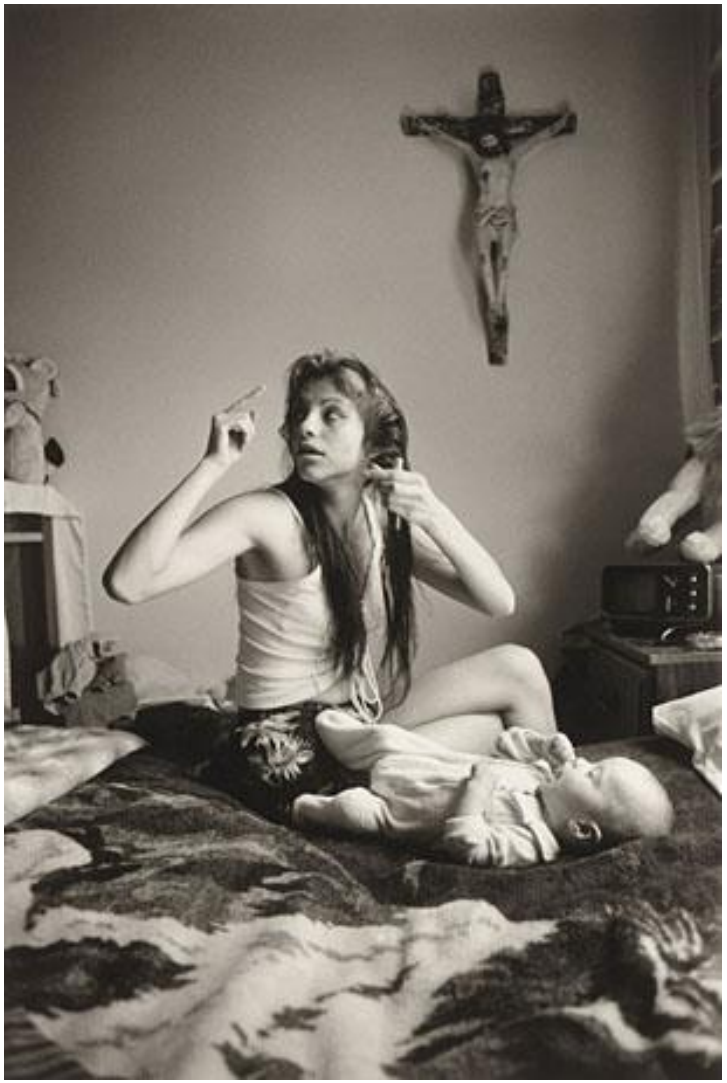
Graciela Iturbide

Graciela Iturbide

- Culture, ritual and everyday life in her native Mexico and other countries.

- Iturbide has extended the concept of documentary photography, to explore the relationships between man and nature, the individual and the cultural, the real and the psychological.

Graciela Iturbide



Nicholas Nixon

The Brown Sisters

Nicholas Nixon

The Brown Sisters

Nicholas Nixon

The Brown Sisters

Nicholas Nixon

The Brown Sisters

Tseng Kwong Chi :
East Meets West

Tseng Kwong Chi

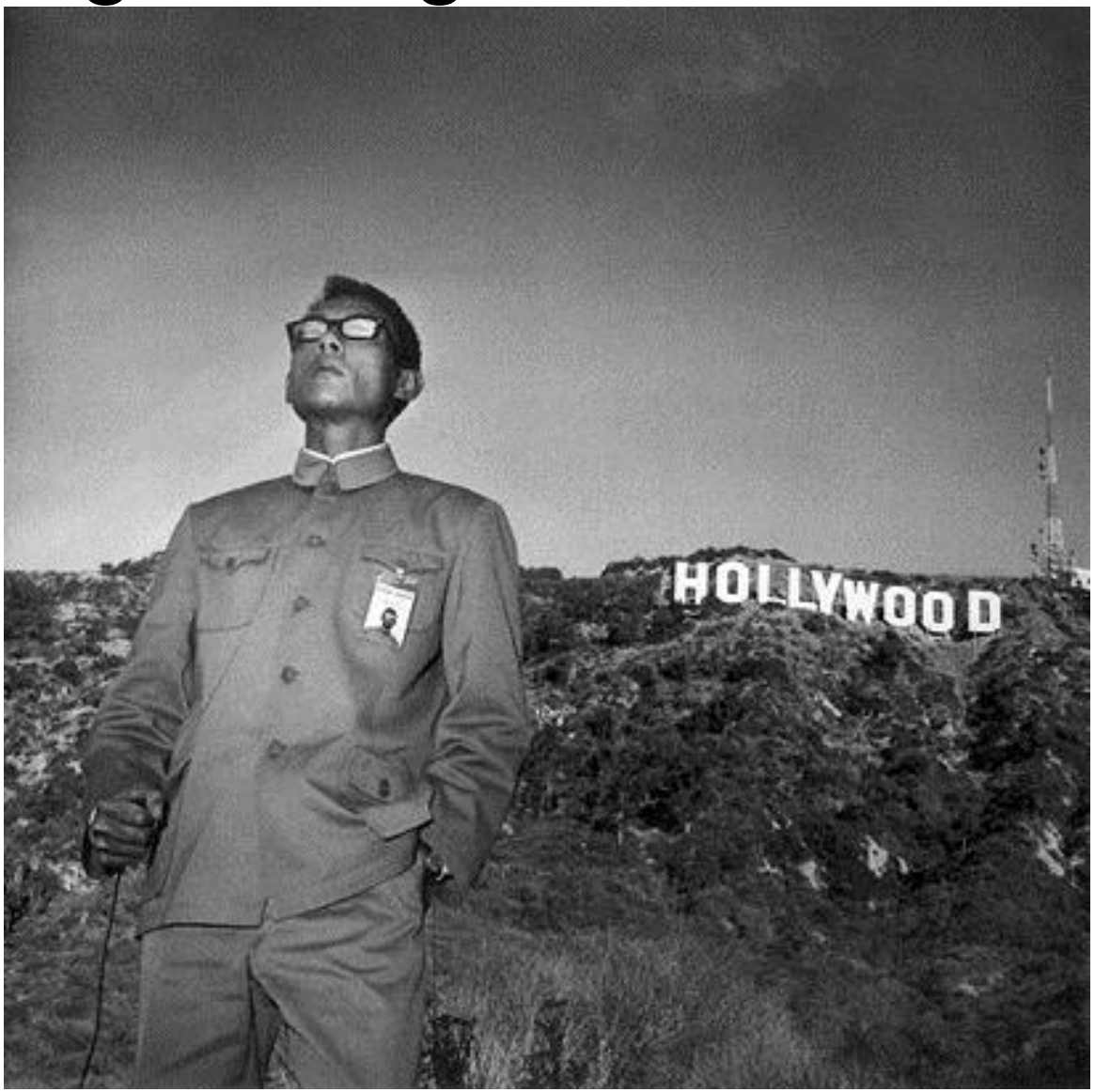
- -As a Hong-Kong born, Paris-trained artist, Tseng viewed himself as a citizen of the world and eschewed labeling himself or his art as "Chinese." However, his ironic self-portraits posed in a Mao suit in front of American landmarks found their way to Communist China and were profoundly influential for China's avant-garde, including conceptual artists

- - Tseng's photographs not only satirized relations between the United States and its emerging rival, China, but also broadcasted his freedom of movement - a privilege denied most Chinese artists at the time.

Tseng Kwong Chi : **East Meets**

Tseng Kwong Chi : **East Meets**

Tseng Kwong Chi : **East Meets**



Philip Lorca DiCorcia

Philip Lorca DiCorcia

Catherine Opie

Catherine Opie

- Opie's work is characterized by a combination of formal concerns, a variety of printing technologies, references to art history, and social/political commentary. An example of formal concerns include addressing issues of the horizon line in the "ice house" and "surfer" series. She has printed photographs using chromochrome, iris prints, Polaroids, and silver photogravure. Examples of art history references include the use of bright color backgrounds in portraits which reference the work of Hans Holbein[10] and the full body frontal portraits that reference August Sander. A common social/political theme in her work is the concept of community. Opie has investigated aspects of community, making portraits of many groups including LGBT community; surfers; and most recently high school football players. Opie is interested in how identities are shaped by our surrounding architecture. Her work is informed by her identity as an out lesbian.[11] Her works balance personal and political. Her assertive portraits bring queers to a forefront that is normally silenced by societal norms.

- From: http://en.wikipedia.org/wiki/Catherine_Opie

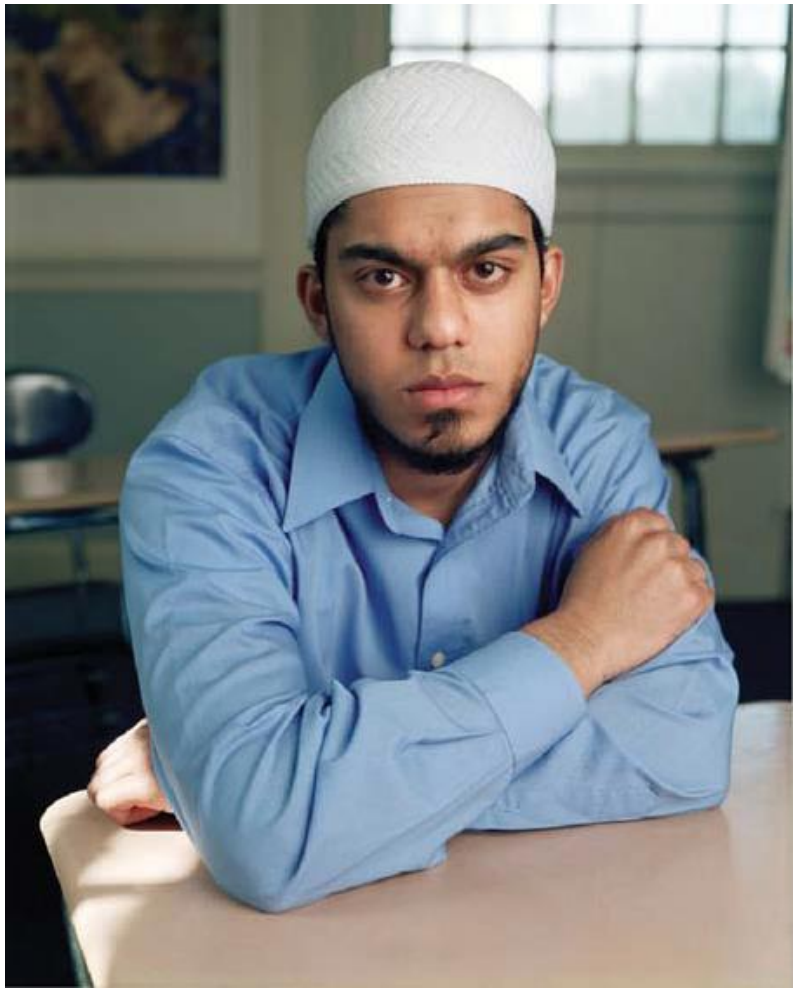
Catherine Opie

Catherine Opie

Dawoud Bey

"Class Pictures: Photographs by Dawoud Bey," Mr. Bey spent weeks in high schools from Detroit to Orlando, Fla., to San Francisco.

Dawoud Bey



Dawoud Bey

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