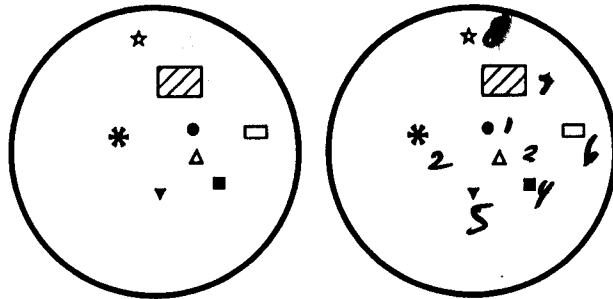


1. Test of stereo vision. Use the pocket stereoscopes to view the left and right images in Figure A. Rank the shapes according to apparent height (1 = highest; 8 = lowest).



A. Left and right images.

- 1 High
- * 2
- △ 3
- 4
- ▼ 5
- 6
- ▨ 7
- ☆ 8 Low

2. Air photos were obtained from an aircraft with an average camera altitude of 3050 m above the earth's surface. The lense has a focal length of 152 mm. What is the scale of the photographs? Round to the nearest whole number. Show all of your math work.

$$\text{SCALE} = \frac{1}{(H/f)} = \frac{1}{(3050\text{m}/0.152\text{m})} = 1:20,066$$

3. A photograph has a scale of 1:10,000 and the camera focal length was 152 mm. A cliff face is measured on the photograph with the following data:

Distance of cliff from principal point = 3.1 inches (as measured on the photo)
 Apparent height of cliff = 0.49 inches (as measured on the photo)

What is the actual height of the cliff face in meters? How about feet? (Show all your math work)

$$h = (H \times d) / r$$

h = ACTUAL HT.
 H = ALTITUDE/HT. CAMERA
 d = apparent object HT.
 r = DIST. FROM PRINCIPAL PT.

CONVERT ALL UNITS TO M, USING
 GROUND MEASURE IN FEET

$$h = (H \times d) / r = \frac{(1520\text{m})(124.5\text{m})}{787.4\text{m}} = 240.3\text{m} = 788.5\text{ft}$$

$$H = 10000(f) = (10,000)(0.152\text{m}) = 1520$$

$$d = (0.49\text{in})(10,000) = 4900\text{in} \left(\frac{1\text{ft}}{12\text{in}} \right) \left(\frac{1\text{m}}{3.281\text{ft}} \right) = 124.5$$

$$r = (3.1\text{in})(10,000) = 31,000\text{in} \left(\frac{1\text{ft}}{12\text{in}} \right) \left(\frac{1\text{m}}{3.281\text{ft}} \right) = 787.4\text{m}$$

4. A standard air photo frame is 9 inches x 9 inches in area. If a standard air photo has a scale of 1:63,360, using a 152 mm lense:

A) What will be the actual land area covered in square feet? how about square kilometers?

$$\text{SIDE} = (9\text{in})(63,360) = 570,240\text{in} \left(\frac{1\text{ft}}{12\text{in}} \right) = 47520\text{ft} \left(\frac{1\text{m}}{3.281\text{ft}} \right) = 14483.4\text{m} \left(\frac{1\text{km}}{1000\text{m}} \right) = 14.48\text{km}$$

$$\text{AREA}(\text{ft}^2) = 47520\text{ft} \times 47520\text{ft} = 2.26 \times 10^9 \text{ft}^2 = 209.67 \text{km}^2$$

B) What altitude will the aircraft have to fly at to produce these images? (show all math work)

$$\frac{1}{(H/f)} \rightarrow \text{SCALE: } \frac{1}{63,360} = \frac{1}{(H/f)} = \frac{f}{H}; \quad \frac{1}{63,360} = \frac{0.152\text{m}}{H}$$

$$H = (0.152\text{m})(63,360) = 9630.72\text{m} =$$

$$31,598.4\text{ft}$$

5. Pick at least one stereo-photo pair each from: Crystal Set 1, Crystal Set 2, and the Aerial Stereo Photograph book. Make sure you can see in 3-D using the mirrored geoscopes and pocket stereoscopes. O.K. - Done

Now try seeing in 3-D without the stereoscopes. Use the Meteor Crater example on p. 58 of the Aerial Stereo Photograph book. This is similar to "magic eye" 3-D picture viewing. Center each eye over the crater on each photo pair. Try holding the book upright in front of your face; start out close to your eyes and slowly move the photos away until the two separate left-right photos "dissolve" into a third photo in the center... see if you can get the apparent third photo to appear in 3-D. COOL

Now try seeing 3D images in "Figure A" of question 1, without using the stereoscope. WAY

6. Use either the mirrored geoscopes or pocket stereoscopes to make landscape observations about the following photographs:

Crystal Set 1 Photos 2LR, 4LR, 5LR, 9LR, 12LR, 15LR, and 17LR

Crystal Set 2 Photos 10AB, 13AB, 18AB, 19AB, and 20AB

Use the observation check lists on the pages that follow to guide you through the observation process. Fill out the data sheets and write a brief 100-200 word summary of your observations at the bottom of the each page. For the sake of convenience and neatness, download this exercise from the G322 page at my website (www.wou.edu/taylor), "saveas" a "text file", import into your favorite word processor, and complete your final work sheets / writing on the PC.

SINCE MY HANDWRITING IS POOR - I AM TOTALLY CONNECTED TO MY PC / WORD PROCESSOR.
THIS WAS SUPPOSED TO MAKE IT EASIER FOR YOU - NOT MORE DIFFICULT.
MY APOLOGIES IF THE OPPOSITE WAS TRUE...
S.T.

Air Photo Data Sheets

Air Photo I.D. SET 1 2L/R - WEST VIRGINIA

Choose one or more of all observations that apply.

- 1. General landscape patterns (linear dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
DENDRITIC
- 2. General landscape relief (low, medium, high):
MEDIUM - H
- 3. Overall hillslope gradients (gentle, moderate, steep):
MTO - STEEP
- 4. Vegetative Type (grasses, shrubs, trees, other-explain):
TREES / FOREST
- 5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain):
MODERATE -
- 6. Climate (humid, semi-arid, arid, other-explain):
HUMID
- 7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain):
FORESTRY, MINING = CONTOUR STRIP MINING
- 8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain):
EROSION (FLUVIAL / MASS WASTING)
- 9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain):
FLUVIAL / MASS WASTING
- 10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain):
GRAVITY, CLIMATE
- 11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain):
PRESENT -> ANCIENT

SUMMARY:

NOTE: THIS IS CLASSIC
WEST VIRGINIA HILLBILLY
COUNTRY WITH MINE-RELATED
ACTIVITY

Air Photo Data Sheets

Air Photo I.D. SET 1-4 LR VIRGINIA - SHENANDOAH VALLEY

Choose one or more of all observations that apply.

- 1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
LINEAR RIDGES, MEANDERING RIVER
- 2. General landscape relief (low, medium, high):
MED - HIGH
- 3. Overall hillslope gradients (gentle, moderate, steep):
MED - STEEP
- 4. Vegetative Type (grasses, shrubs, trees, other-explain):
TREES / FOREST
- 5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain):
MED - DENSE
- 6. Climate (humid, semi-arid, arid, other-explain):
HUMID
- 7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain):
FORESTRY - AGRICULTURE
- 8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain):
EROSION - IN THE - DEPOSITION ALONG RIVER
- 9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain):
FLUVIAL / MASS WASTING
- 10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain):
GRAVITY, CLIMATE
- 11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain):
PRESENT -> ~~RECENT~~ DISTANT PAST

SUMMARY:

NOTE: THIS IS KNOWN AS "SEVEN BENDS" SECTION ALONG THE SHENANDOAH RIVER. THE SHENANDOAH VALLEY FORMS A MAJOR BOUNDARY BETWEEN THE VALLEY & RIDGE & BLUE RIDGE PROVINCES

Air Photo Data Sheets

Air Photo I.D. SET 1 SLR MT RAINIER

Choose one or more of all observations that apply.

1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
 2. General landscape relief (low, medium, high): RADIATING
 3. Overall hillslope gradients (gentle, moderate, steep): HIGH
 4. Vegetative Type (grasses, shrubs, trees, other-explain): STEEP
 5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain): ALPINE ABOVE TREE LINE - LOW EL. FORESTS
 6. Climate (humid, semi-arid, arid, other-explain): NON-EXISTENT - HIGH EL. / MOD - ALPINE -> LOW EL.
 7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain): HUMID
 8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain): NONE -> FORESTRY
 9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain): EROSION ALPINE GLACIATION / FLUVIAL
 10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain): ALL OF THE ABOVE CLIMATE -> GLACIA TECTONIC -> VOLCANIC
 11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain): PRESSENT -> DISTANT PAST
- SUMMARY:

NOTE:

MT. RAINIER -

VOLCANISM + HIGH

ACTIVITIES + GLACIALS =

OUTRAGEOUS SLAVERY

Air Photo Data Sheets

Air Photo I.D. 9 L/R SET 1 WYOMING ROCKIES

Choose one or more of all observations that apply.

- 1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
- 2. General landscape relief (low, medium, high): IRREGULAR RIDGES / BAN-SHAPED DEPRESSIONS
- 3. Overall hillslope gradients (gentle, moderate, steep): STEEP
- 4. Vegetative Type (grasses, shrubs, trees, other-explain):
- 5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain): SPARSE TREES — ABOVE TREE LINE
- 6. Climate (humid, semi-arid, arid, other-explain): SPARSE
- 7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain): SEMI-ARID
- 8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain): NONE
- 9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain): EROSION
GLACIAL EROSION / MASS WASTING
- 10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain): ALL OF THE ABOVE
- 11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain): RECENT PAST — GLACIATION

SUMMARY:

NOTE: CIRCQUES & ALPINE
GLACIAL VALLEYS ABOVE
TREE LINE

Air Photo I.D. 12 LR / SET 1 MENAN BUTTES, ID

Choose one or more of all observations that apply.

- 1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain): IRREGULAR / CHAOTIC TO LEFT / RECTANGULAR LAND USE / MEANDERING FLUVIAL
- 2. General landscape relief (low, medium, high): LOW
- 3. Overall hillslope gradients (gentle, moderate, steep): GENTLE - FLAT
- 4. Vegetative Type (grasses, shrubs, trees, other-explain): SHRUBS TO LEFT / CROPS TO RT.
- 5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain): SPARSE TO LEFT
- 6. Climate (humid, semi-arid, arid, other-explain): SEMI-ARID
- 7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain): AGRICULTURAL
- 8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain): VOLCANIC DEPOSITION / CONSTRUCTION; FLUVIAL DEPOSITION
- 9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain): VOLCANISM (CINDER CONES), LAVA FLOWS (LEFT), FLUVIAL
- 10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain): VOLCANISM
- 11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain): RECENT PAST - PRESENT

SUMMARY:

NOTE: CLASSIC VOLCANIC TERRAIN / EVIDENCE FOR RECENT VOLCANISM ALSO CLASSIC MEANDERING FLUVIAL SYSTEM

Air Photo I.D. SET 15 LIR DEATH VALLEY

Choose one or more of all observations that apply.

1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
2. General landscape relief (low, medium, high): BRADED FLUVIAL, LINEAR-ARCuate RIDGES, FANS-RADIATING
3. Overall hillslope gradients (gentle, moderate, steep): LOW ON FLUVIAL, M-HIGH ON MOUNTAINS
4. Vegetative Type (grasses, shrubs, trees, other-explain): MOD-HIGH ON MOUNTAINS, GENTLE/LOW ON BROAD PLAINS
5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain): SHRUBS - GRASSES
6. Climate (humid, semi-arid, arid, other-explain): NON-EXISTENT TO SPARSE
7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain): ARID
8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain): NONE - TO DRY
9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain): DEPOSITION - FLUVIAL; MTN EROSION
10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain): ALL OF THE ABOVE / CLIMATE ^{DRY} IMPORTANT
11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain): PRESENT - RECENT PAST

SUMMARY:

NOTE: CLASSIC "CLOSED DRAINAGE SYSTEMS" — I.E. NOT ENOUGH RAIN FALL TO DRIVE RIVERS TO MOVE SEDIMENT OUT OF THE VALLEYS.
NOTE FANS & BAJAAS

Air Photo I.D. SET 1 174R MISSISSIPPI

Choose one or more of all observations that apply.

- 1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
- 2. General landscape relief (low, medium, high): MEANDERING / ARCUATE
LOW
- 3. Overall hillslope gradients (gentle, moderate, steep):
- 4. Vegetative Type (grasses, shrubs, trees, other-explain): LOW
- 5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain): TREES
- 6. Climate (humid, semi-arid, arid, other-explain): DENSE
- 7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain): Humid
- 8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain): FORESTRY / AGRICULTURE
DEPOSITION
- 9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain): WATER-FLUVIAL
- 10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain): CLIMATE - MUCHO H2O
- 11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain): PRESENT

SUMMARY:

NOTE: THIS IS A CLASSIC
"OLD AGE" MEANDERING
FLUVIAL TERRAIN

Air Photo I.D. SET 2 10A/B - SAN CLEMENTE

Choose one or more of all observations that apply.

- 1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
TRANSVERSE PARALLEL ASYMMETRIC VALLEYS, BENCHES PARALLEL TO COAST
- 2. General landscape relief (low, medium, high):
MED - HIGH
- 3. Overall hillslope gradients (gentle, moderate, steep):
MOD - STEEP
- 4. Vegetative Type (grasses, shrubs, trees, other-explain):
SHRUBS / TREES
- 5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain):
MODERATE
- 6. Climate (humid, semi-arid, arid, other-explain):
SEMI-ARID / ~~TEMPERATE~~ MEDITERRANEAN
- 7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain):
NONE OBSERVABLE - A FEW FIELDS
- 8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain):
EROSION
- 9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain):
FLUVIAL / MASS WASTING / TECTONIC UPLIFT / COASTAL EROSION
- 10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain):
TECTONIC UPLIFT
- 11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain):
PRESENT - DAY / RECENT - PAST

SUMMARY:

NOTE: THIS IS CLASSIC TERRAIN ASSOCIATED WITH ACTIVE TECTONIC UPLIFT, SEA LEVEL FLUCTUATION & COASTAL TERRACE DEPOSITION

Air Photo I.D. SET 2 13A/B - WARRENVILLE PLATEAU, WA

Choose one or more of all observations that apply.

1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
2. General landscape relief (low, medium, high): RECTANGULAR LAND USE / BRAIDED-MEANDERING FLUVIAL
3. Overall hillslope gradients (gentle, moderate, steep): LOW "DERANGED DRAINAGE" CANYON TO RIGHT
4. Vegetative Type (grasses, shrubs, trees, other-explain): GENTLE
5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain): CROPS
6. Climate (humid, semi-arid, arid, other-explain): SPARSE / AG.
7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain): Humid - Semi - Arid
8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain): AGRICULTURAL
9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain): DEPOSITION
10. Dominant driving force behind landscape geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain): CONTINENTAL GLACIATION GLACIAL DEPOSITION / WIND BLOWS TO LEFT TO RIGHT
11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain): CLIMATE - GLACIAL RECENT PAST

SUMMARY:

NOTE: THE CHAOTIC LAND-USE AND TOPOGRAPHY TO RIGHT OF PHOTO IS THE RESULT OF GLACIAL DEPOSITION ("GROUND MOUNTAINS")

THE SMOOTH AG. FIELDS TO THE LEFT WERE UNGLACIATED

THE LINE REPRESENTS THE GLACIAL LIMIT.

Air Photo I.D. SET 2 18A/B SAND DUNE - CORVADO

Choose one or more of all observations that apply.

- 1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
- 2. General landscape relief (low, medium, high): N-NE LINEAR VALLEYS, W - ANCUATE DUNES, C-NE - RADIATING FAIRS
- 3. Overall hillslope gradients (gentle, moderate, steep): LOW EXCEPT MED-HIGH IN MTNS. TO NE
- 4. Vegetative Type (grasses, shrubs, trees, other-explain): GENUINE / MED-STEEP IN MTNS.
- 5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain): SHRUBS - TREES
- 6. Climate (humid, semi-arid, arid, other-explain): NO N-EXISTENT TO SPARSE, MODERATE IN MTNS.
- 7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain): SEMI-ARID
- 8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain): NONE
- 9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain): DEPOSITION IN LOWLANDS, EROSION IN MTNS
- 10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain): WIND-DUNES, FLUVIAL-FAIRS, MASS WASTING / FLUWIA -> MTNS
- 11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain): ALL OF THE ABOVE

SUMMARY:

NOTE: GREAT SAND DUNE
 NAT'L MONUMENT
 HAS BEEN THE
 SITE OF MANY
 HOLLYWOOD MOVIE

Air Photo I.D. SET 2 19A/B WYOMING

Choose one or more of all observations that apply.

- 1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
- 2. General landscape relief (low, medium, high): DOMINANT DAMNAGE
- 3. Overall hillslope gradients (gentle, moderate, steep): MED - HIGH
- 4. Vegetative Type (grasses, shrubs, trees, other-explain): MED - STEEP
- 5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain): TREES
- 6. Climate (humid, semi-arid, arid, other-explain): MODERATE - DENSE
- 7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain): SOME - ARID
- 8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain): FORESTRY POSSIBLY
- 9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain): EROSION - WITH VALLEY DEPOSITION
MASS WASTING / GRAVITY, FLUVIAL EROSION
- 10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain): GRAVITY DOMINANT
- 11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain): PRESENT - RECENT PAST

SUMMARY:

NOTE:

LANDSLIDES - DAMMED ~~LAKE~~ ^{LAKE}

LARGE SLID SCAR AT BOTTOM - RIGHT OF PHOTO

Historic SLID (1920's) DAMMED LAKE

LAKE OVERFLOWED WITH CATASTROPHIC OUTBURST SEVERAL YEARS LATER

Air Photo I.D. SET 2 20 A/B

Choose one or more of all observations that apply.

1. General landscape patterns (linear, dendritic, radiating, parallel, circular, undulating, non-descript, other-explain):
 2. General landscape relief (low, medium, high): CONCENTRIC LAND-USE, DENDRITIC-PARALLEL-FEWIAL
 3. Overall hillslope gradients (gentle, moderate, steep): MEDIUM
 4. Vegetative Type (grasses, shrubs, trees, other-explain): MODERATE
 5. Vegetative Cover (non-existent, sparse, moderate, dense, other-explain): SHRUBS, GRASSES, MEDIUM TREES
 6. Climate (humid, semi-arid, arid, other-explain): SPARSE
 7. Human Land-use (agricultural-grazing, agricultural-crops, residential, urban, industrial, forestry, mining, other-explain): SEMI-ARID
 8. Dominant landscape-forming processes (erosion, deposition, anthropogenic activity, other-explain): SOME URBAN, MINING - OPEN PIT MINING
 9. Primary geomorphic agents (more than one possible: wind, water-fluvial, water-lacustrine, water-marine, ice-alpine glaciation, ice-continental glaciation, gravity-landslides, gravity-mass wasting/general, tectonics-uplift, tectonics-subsidence, tectonics-volcanism, other-explain): EROSION / ANTHROPOGENIC
 10. Dominant driving force behind landscape / geomorphic processes (more than one possible: gravity, earth's internal heat (tectonics), solar energy (climate), other-explain): MAN-MINING; FEWIAL/MASS WASTING
 11. Timing of dominant landscape-forming processes (present-day / ongoing, recent past, distant past, not evident, other-explain): MAN/RESOURCES, + ALL OF THE ABOVE
- PRESENT TO Distant PAST

SUMMARY:

NOTE: BINGHAM CANYON IS
 ONE OF THE LARGEST
 OPEN-PIT COPPER MINES
 IN THE WORLD—
 THE IDEA HERE IS MAN AS
 A GEOMORPHIC AGENT