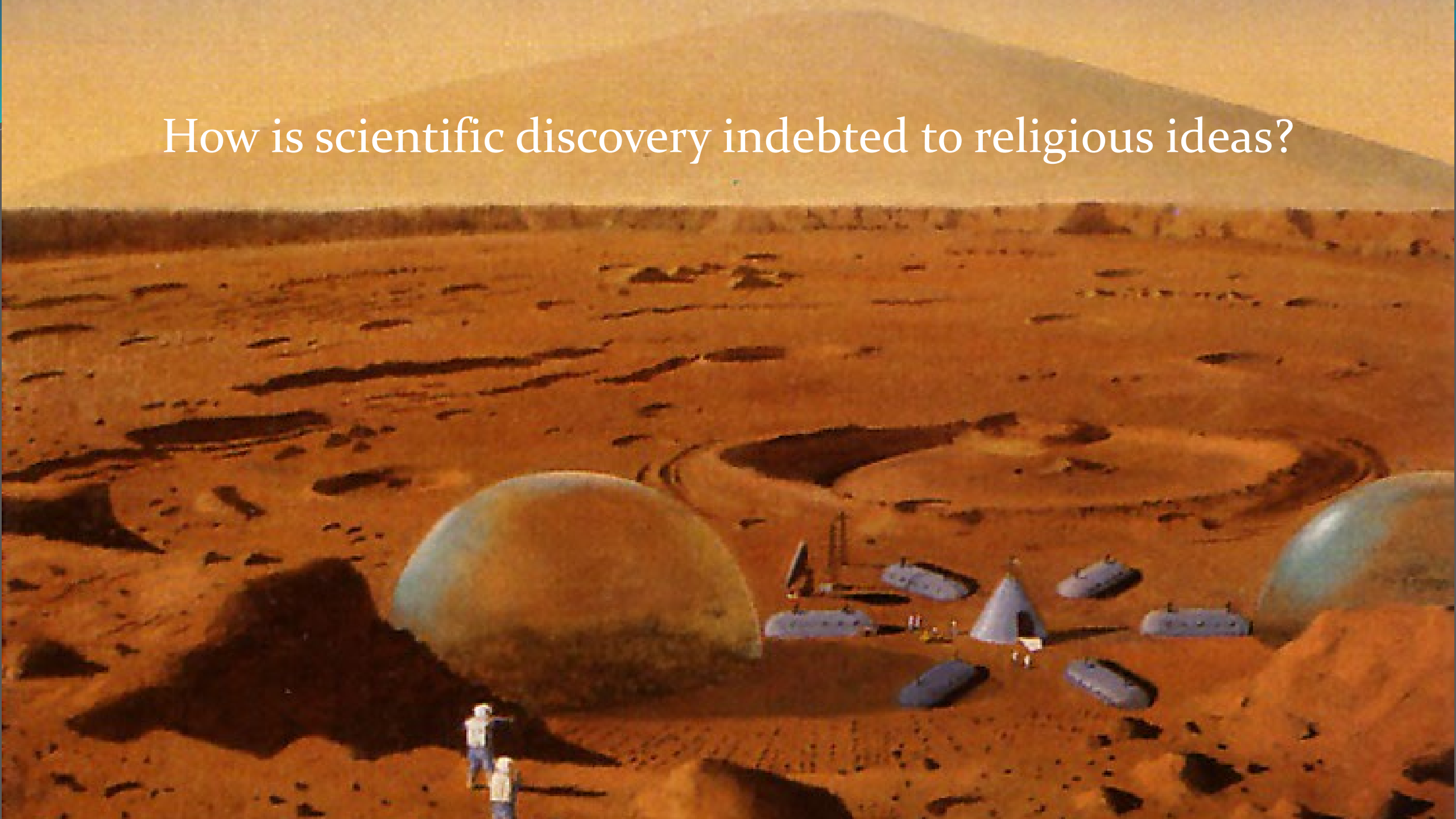
Destined for the Stars: Faith, the Future, and the Final American Frontier

Catherine L. Newell

University of Miami, Department of Religious Studies

How is scientific discovery indebted to religious ideas?



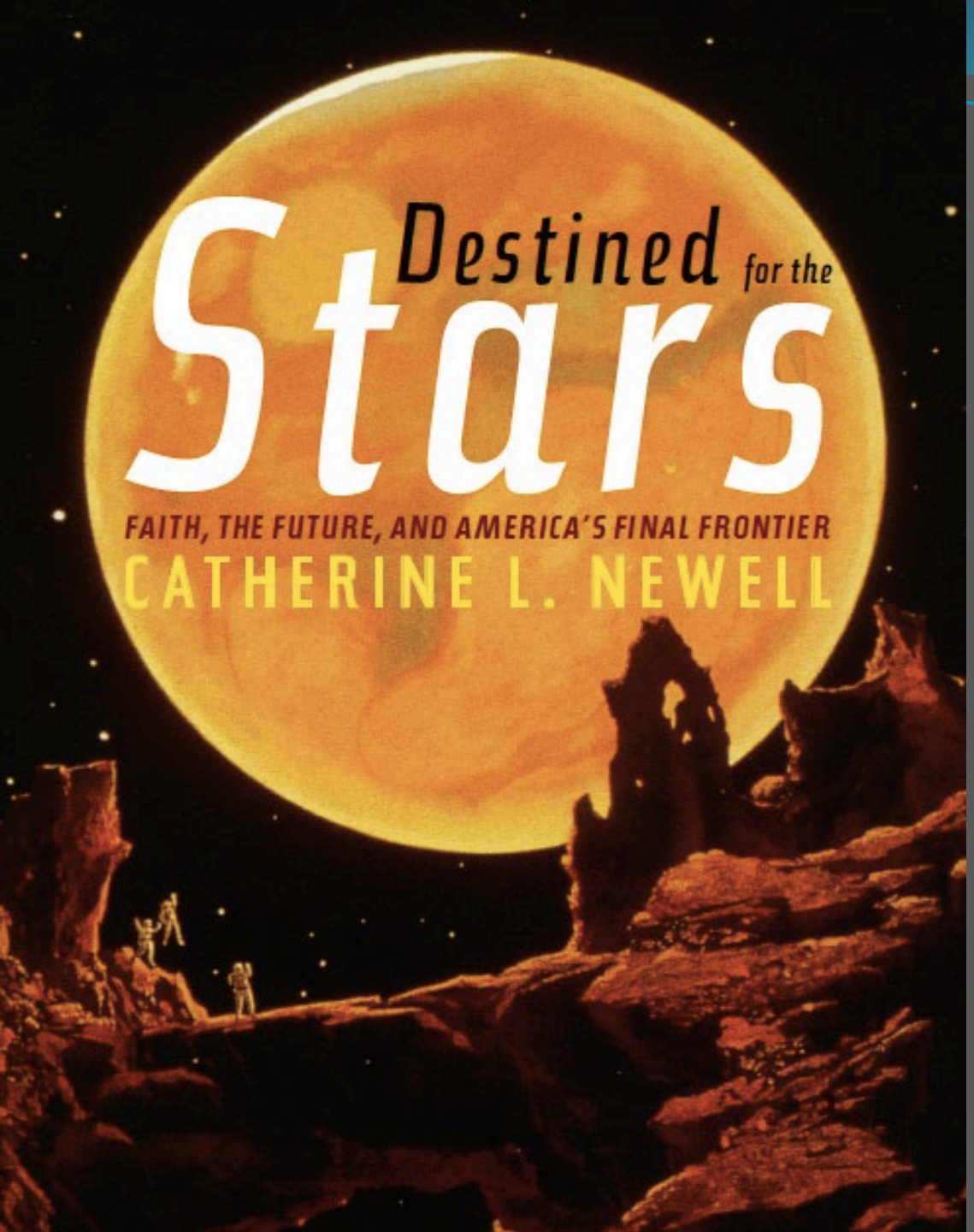
Barbour's Taxonomy of Religion and Science

1. Conflict

2. Independence

3. Dialogue

4. Integration

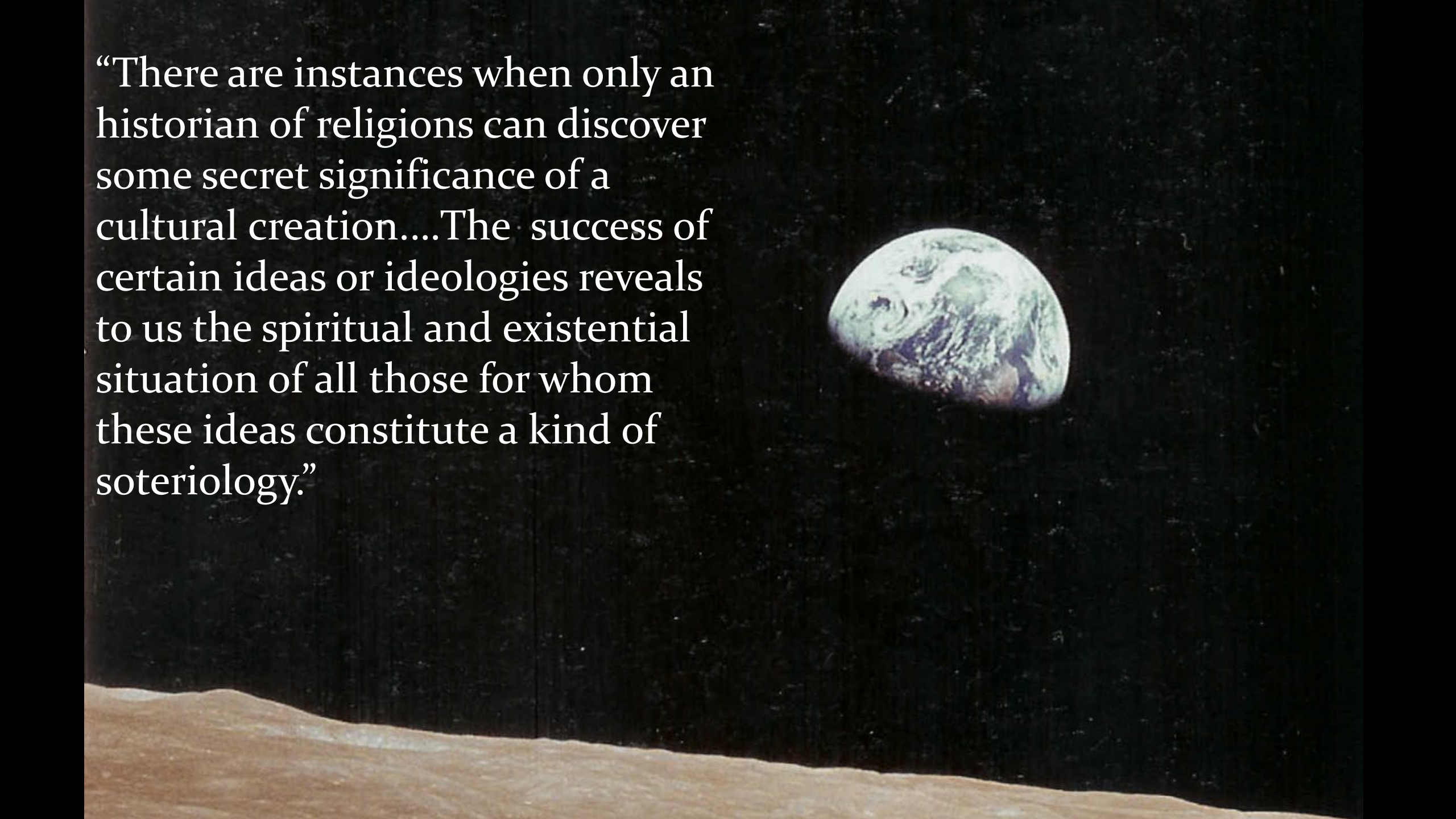


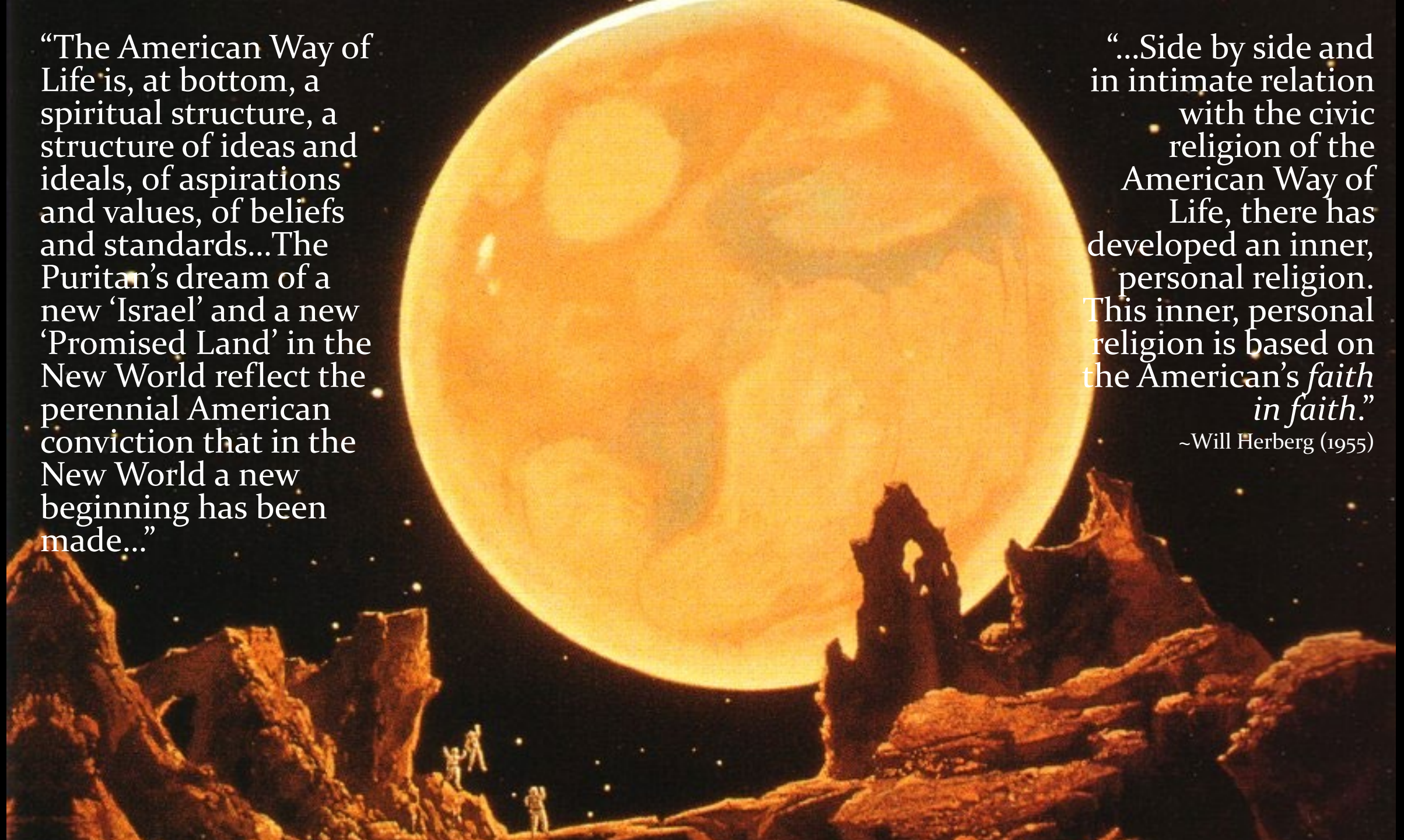
Is faith in our destiny to explore the solar system evidence of ***integration***?

And does the endeavor to explore space make our solar system a ***spiritual*** resource?

"Cultural fashions are extremely significant for the historian of religions, who can decipher in them some hidden meanings. The popularity of cultural fashions reveals something of Western man's dissatisfactions, drives, and nostalgias."

~ Mircea Eliade, "Cultural Fashions and History of Religions" (1965)


“There are instances when only an historian of religions can discover some secret significance of a cultural creation….The success of certain ideas or ideologies reveals to us the spiritual and existential situation of all those for whom these ideas constitute a kind of soteriology.”

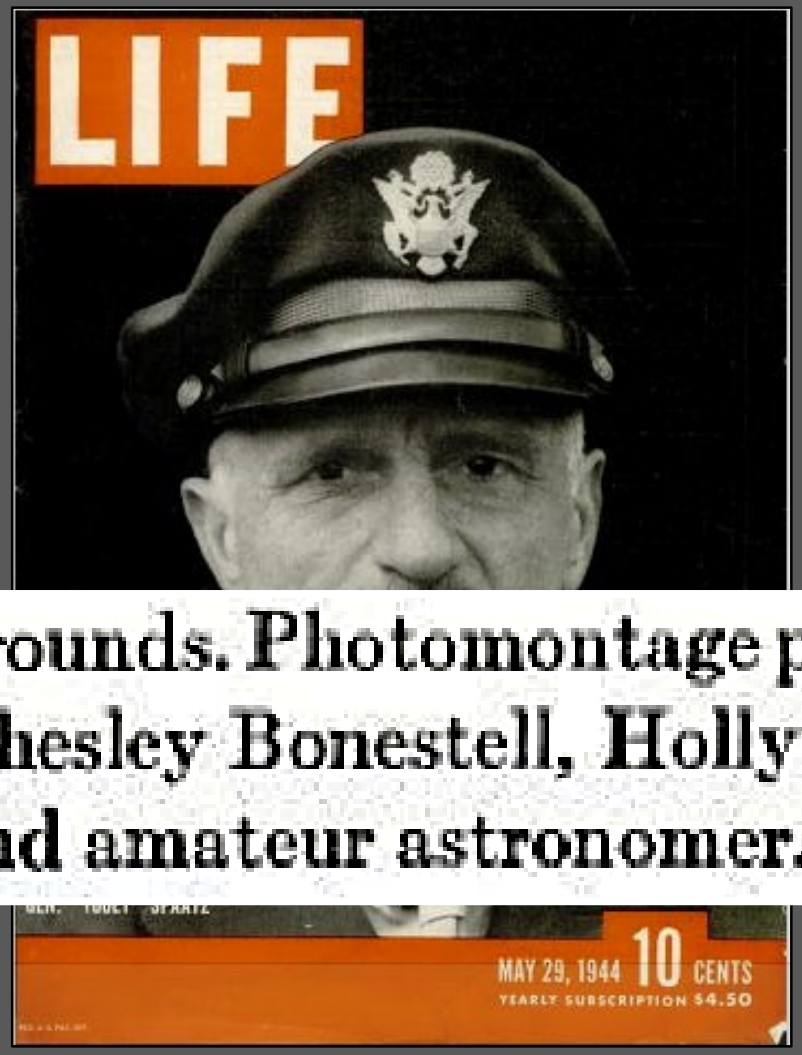


"The American Way of Life is, at bottom, a spiritual structure, a structure of ideas and ideals, of aspirations and values, of beliefs and standards…The Puritan's dream of a new 'Israel' and a new 'Promised Land' in the New World reflect the perennial American conviction that in the New World a new beginning has been made…"

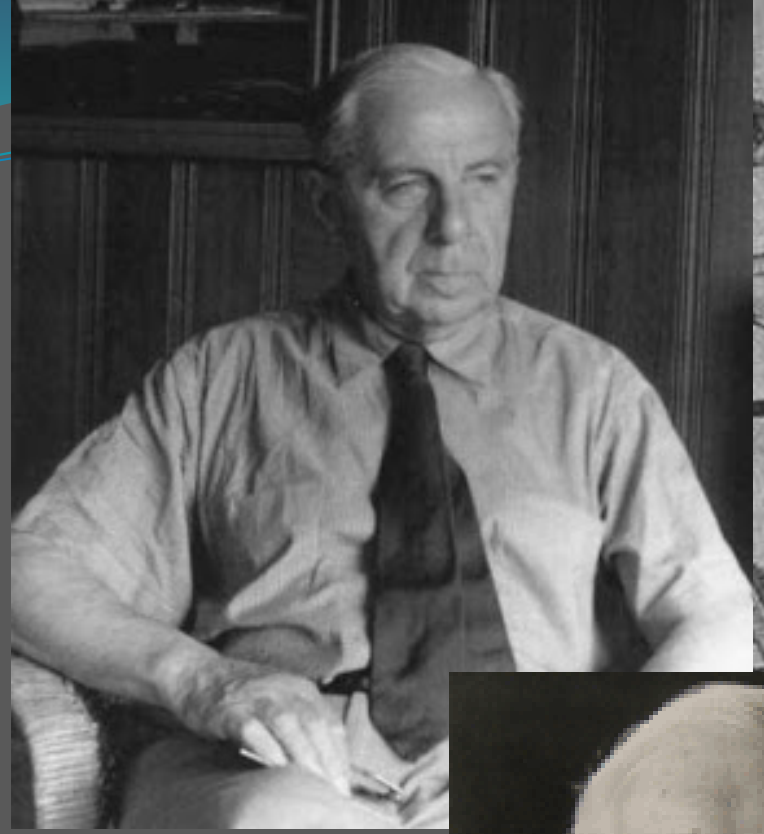
"…Side by side and in intimate relation with the civic religion of the American Way of Life, there has developed an inner, personal religion. This inner, personal religion is based on the American's *faith in faith*."

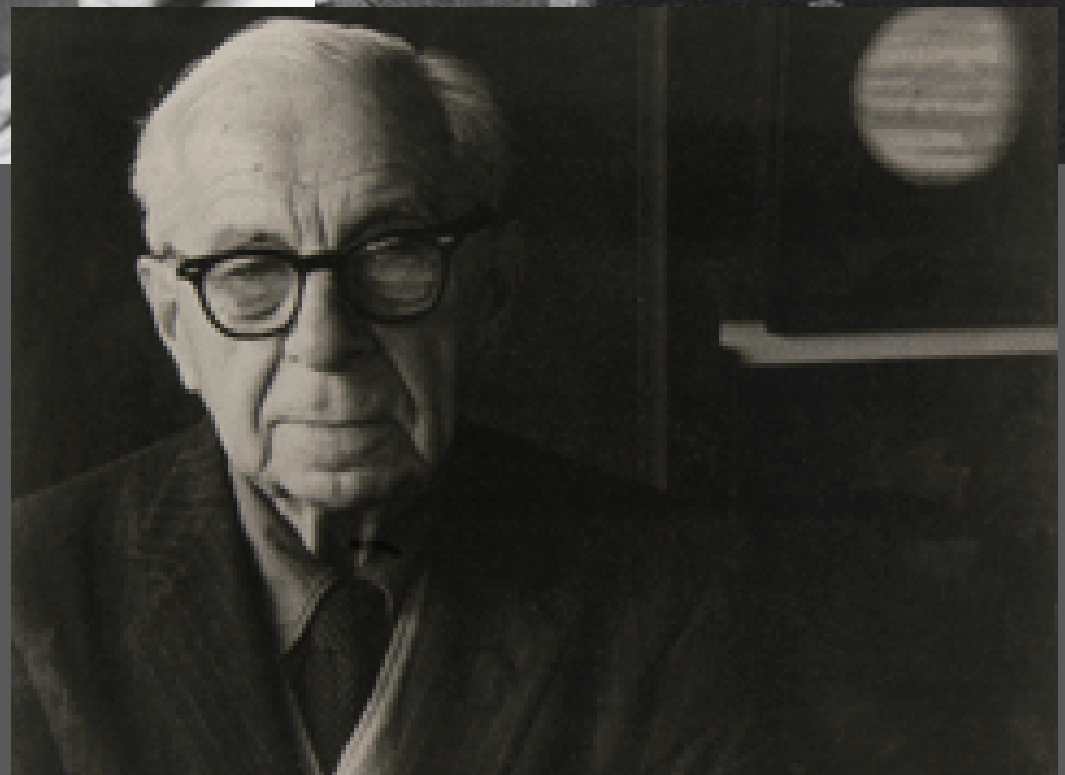
~Will Herberg (1955)

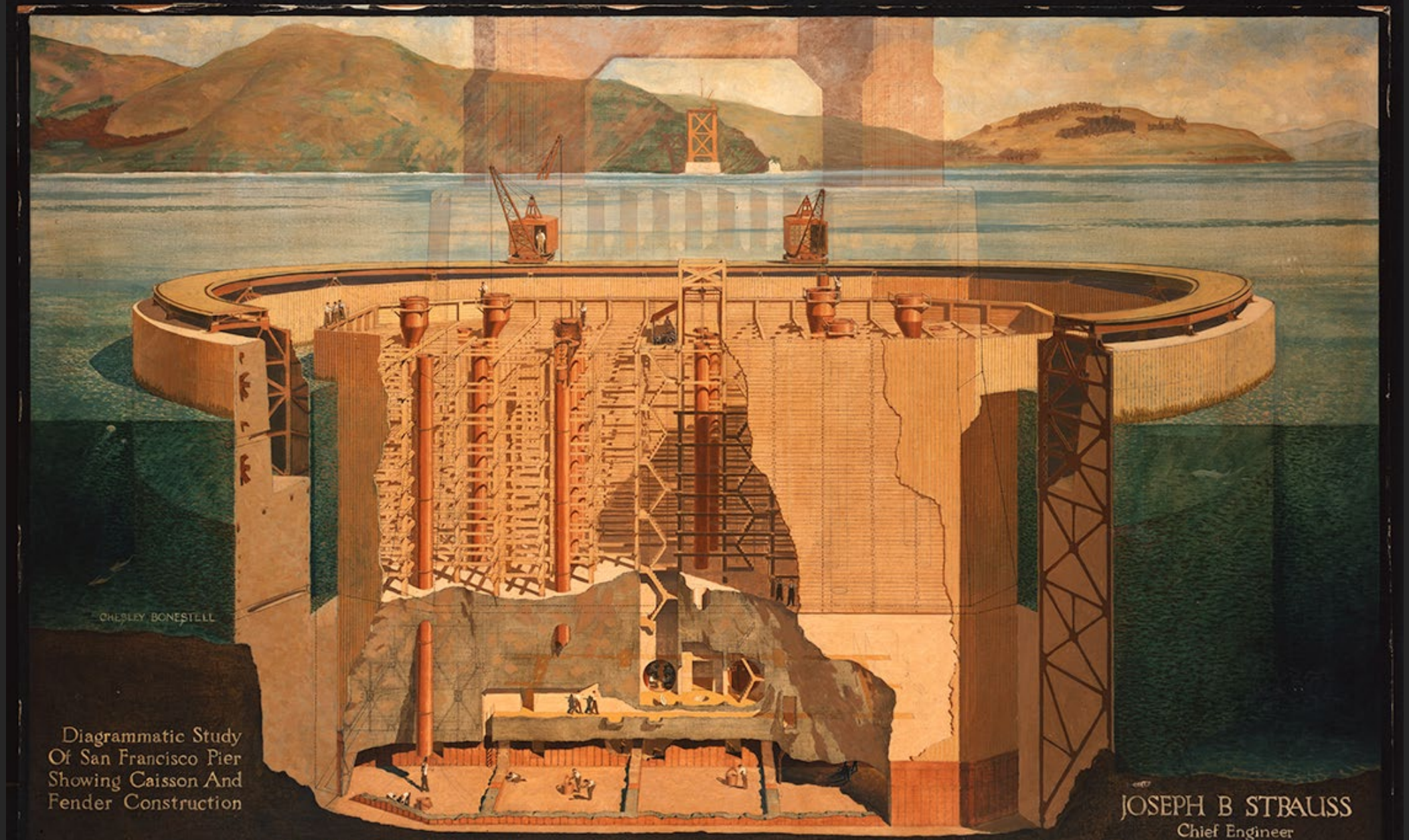
Life Magazine, May 29, 1944

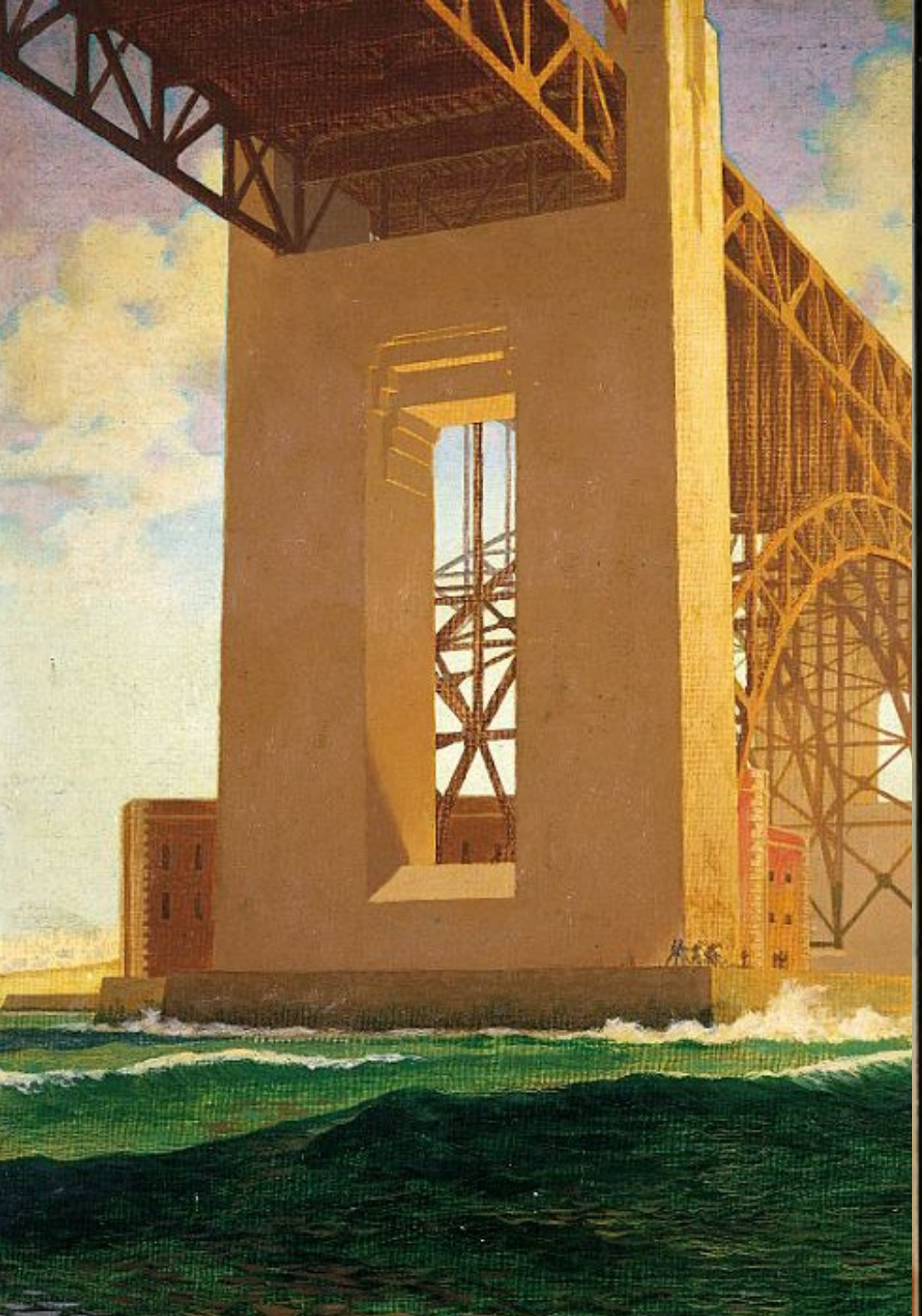


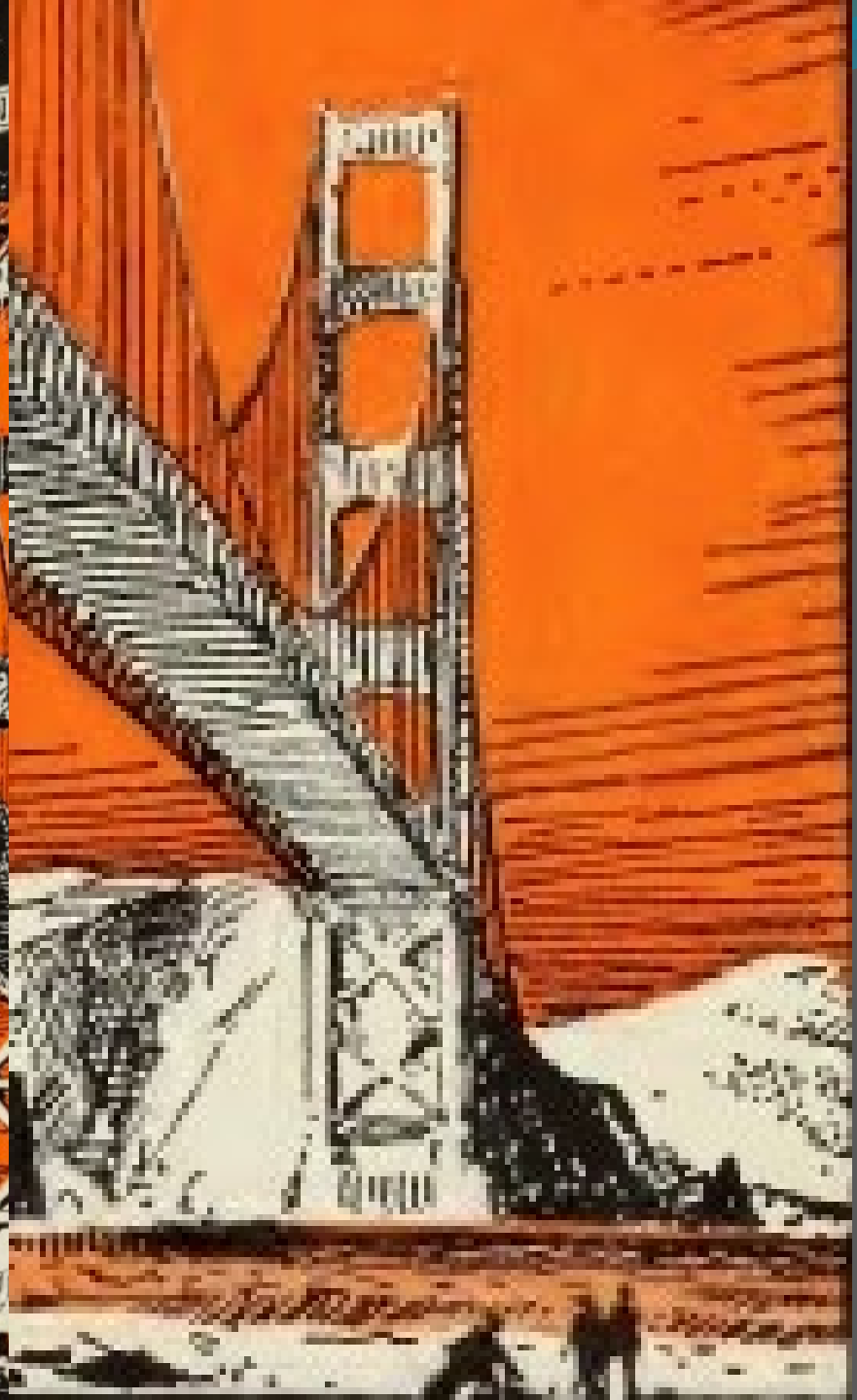
grounds. Photomontage paintings, they were made by Chesley Bonestell, Hollywood miniature-set designer and amateur astronomer.






CHESLEY BONESTELL
Diagrammatic Study
Of San Francisco Pier
Showing Caisson And
Fender Construction
JOSEPH B STRAUSS
Chief Engineer
THE GOLDEN GATE BRIDGE
AT SAN FRANCISCO



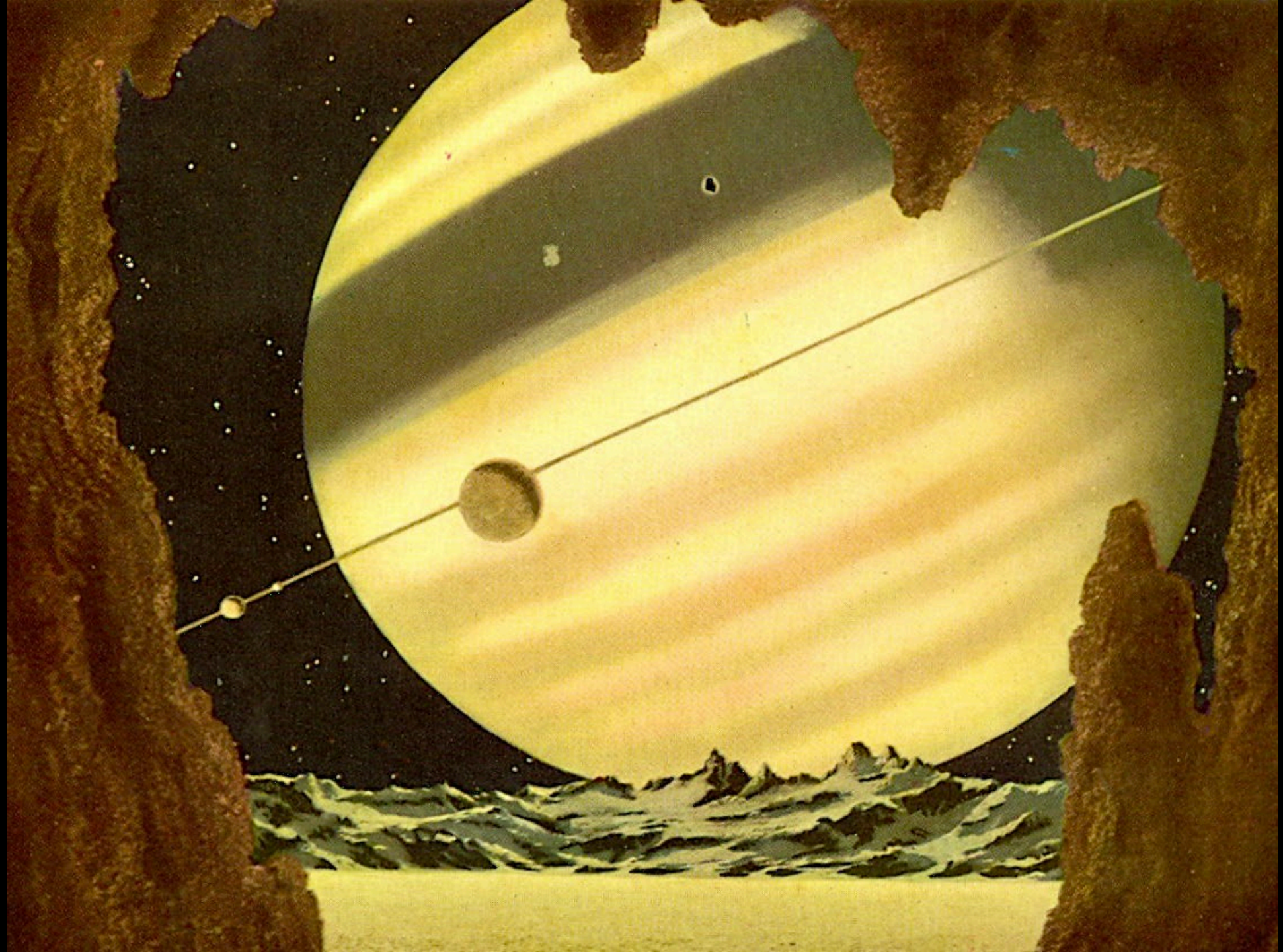


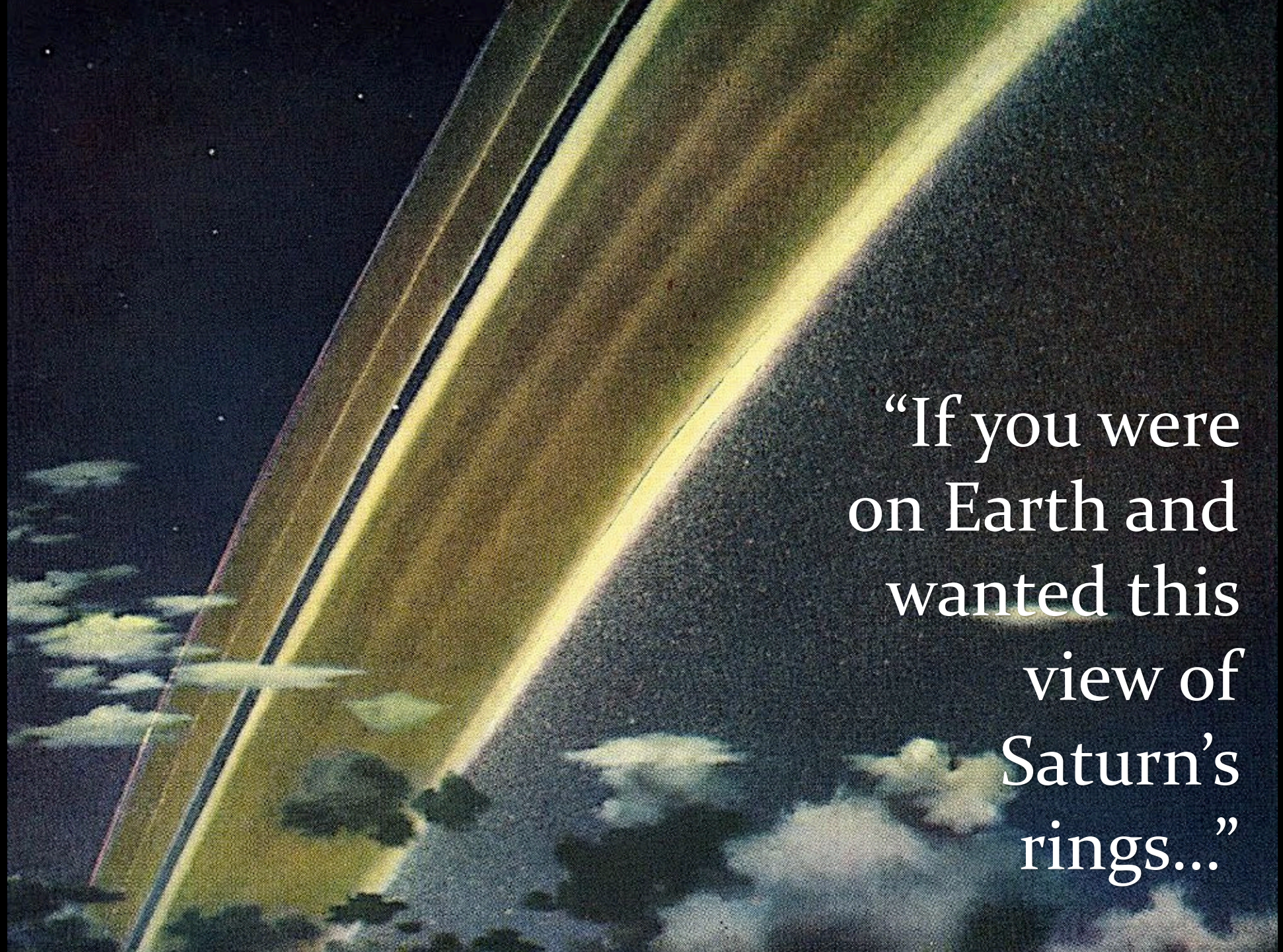
LIFE ON SATURN

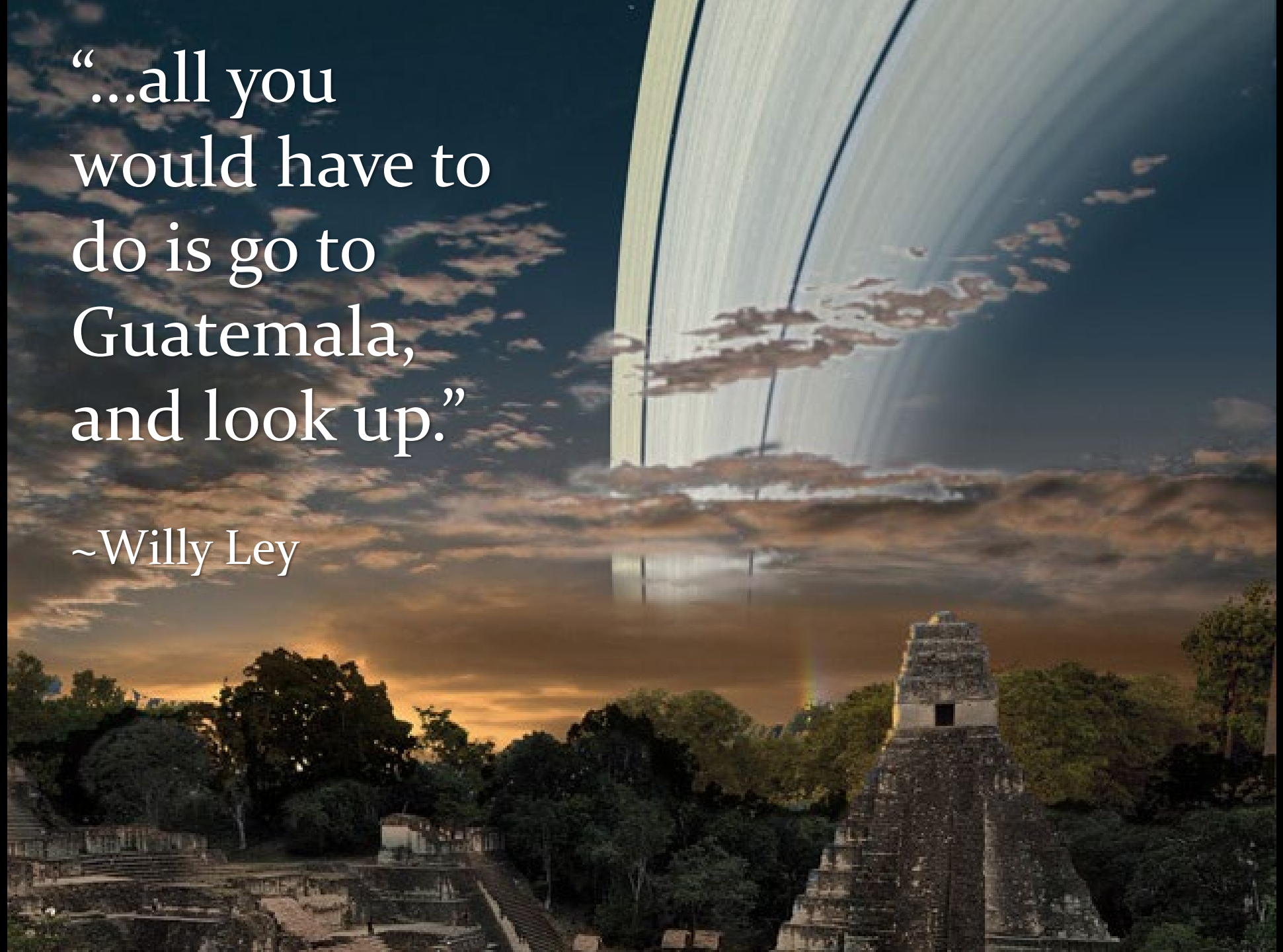
Life on Saturn would evolve along insect lines, with light body, capable of walking spider-like across its swampy, unstable surface. See page 97 for details

“The paintings will take you on a visit to the planet Saturn…”

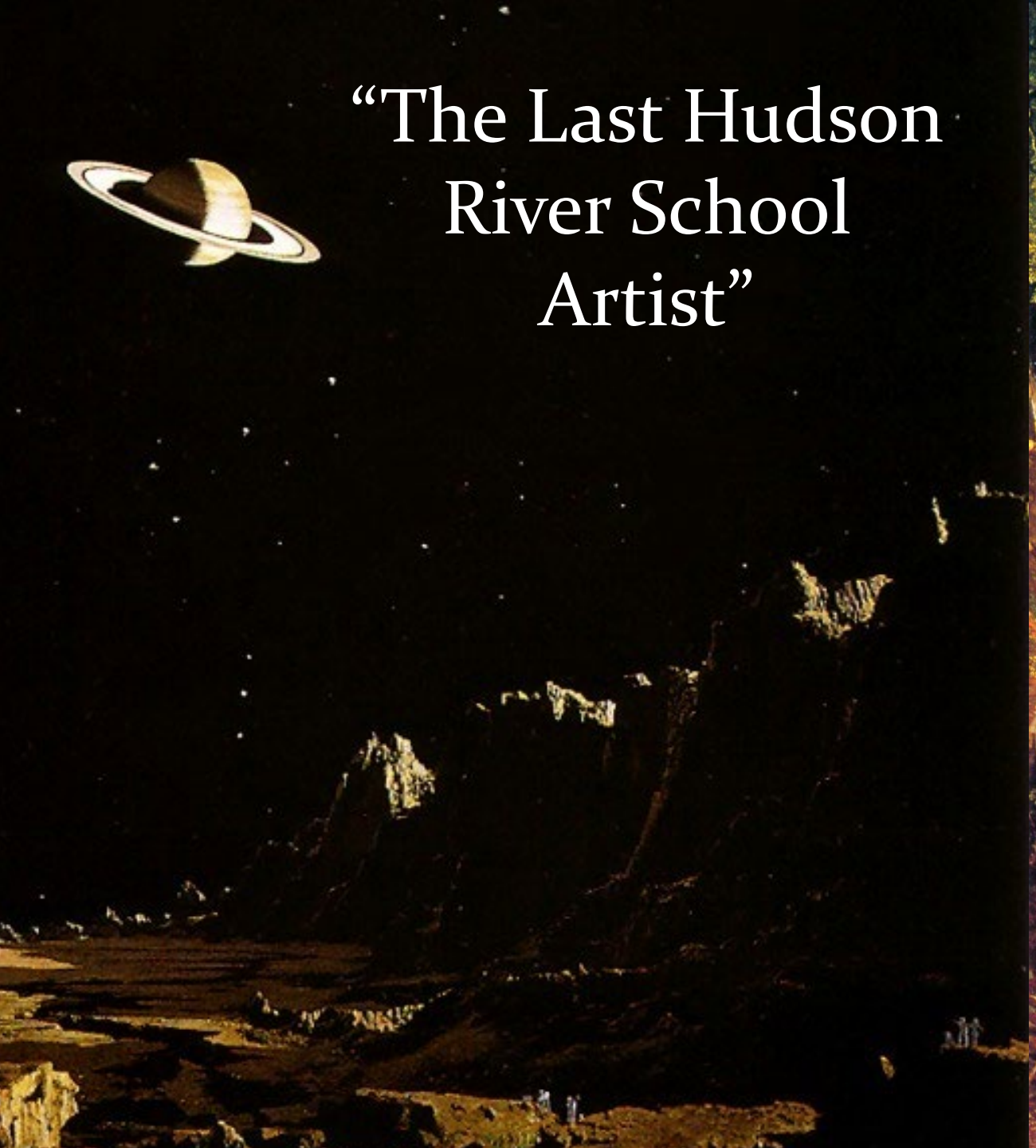

"The Painting that Launched a
Thousand Careers"



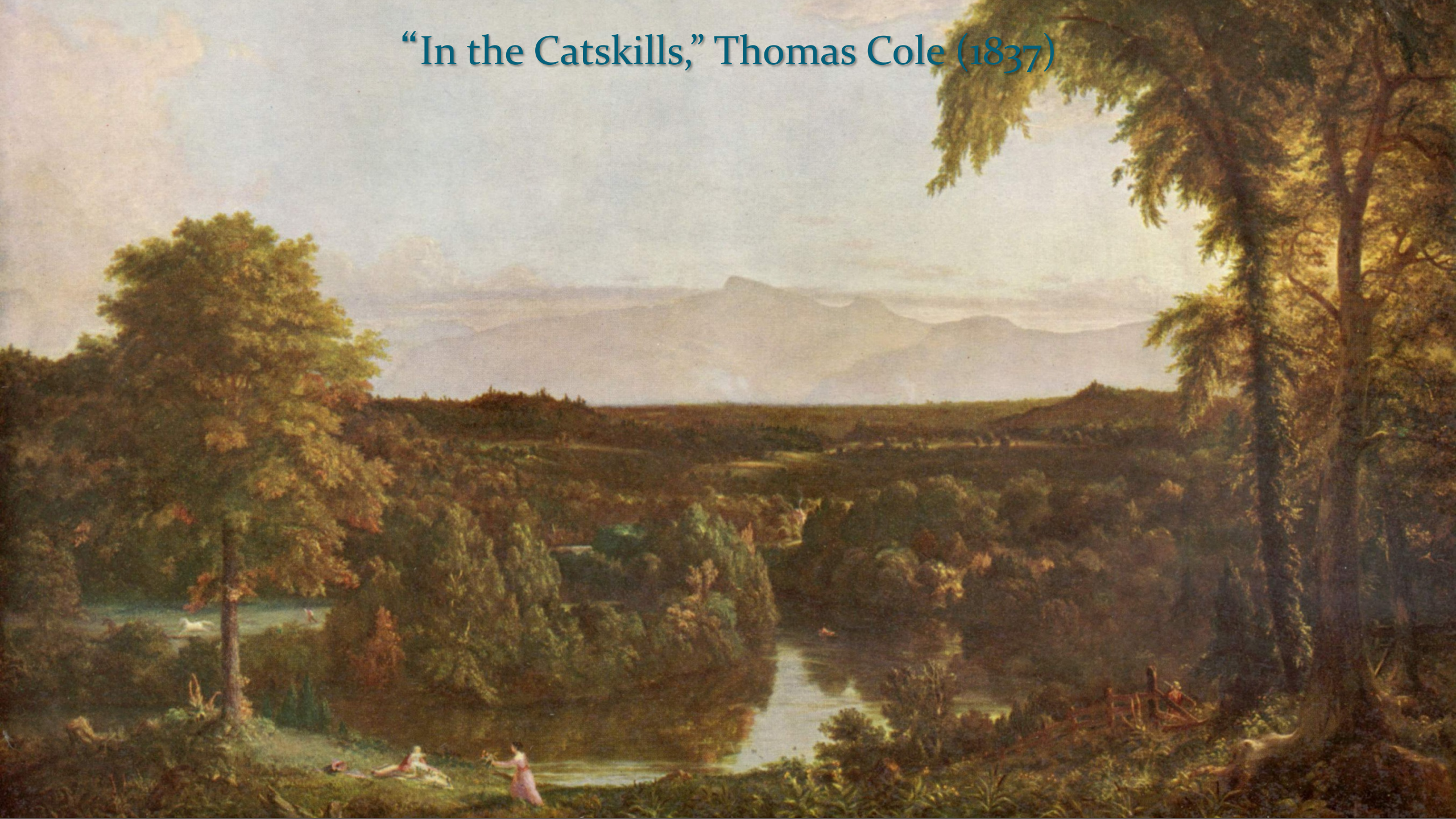

“If you were on Earth and wanted this view of Saturn’s rings…”


“...all you would have to do is go to Guatemala, and look up.”
~Willy Ley

“The Last Hudson River School Artist”

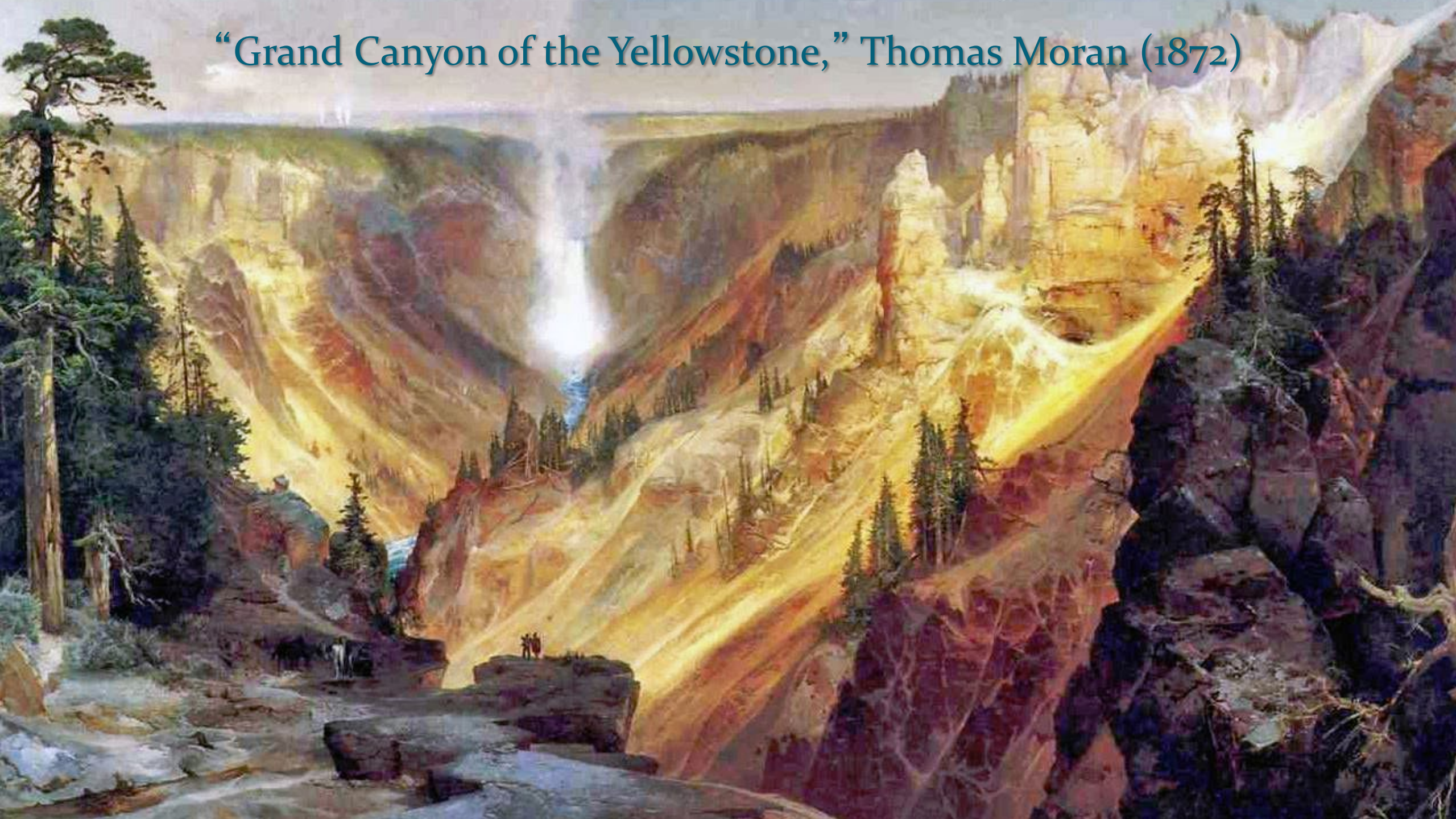


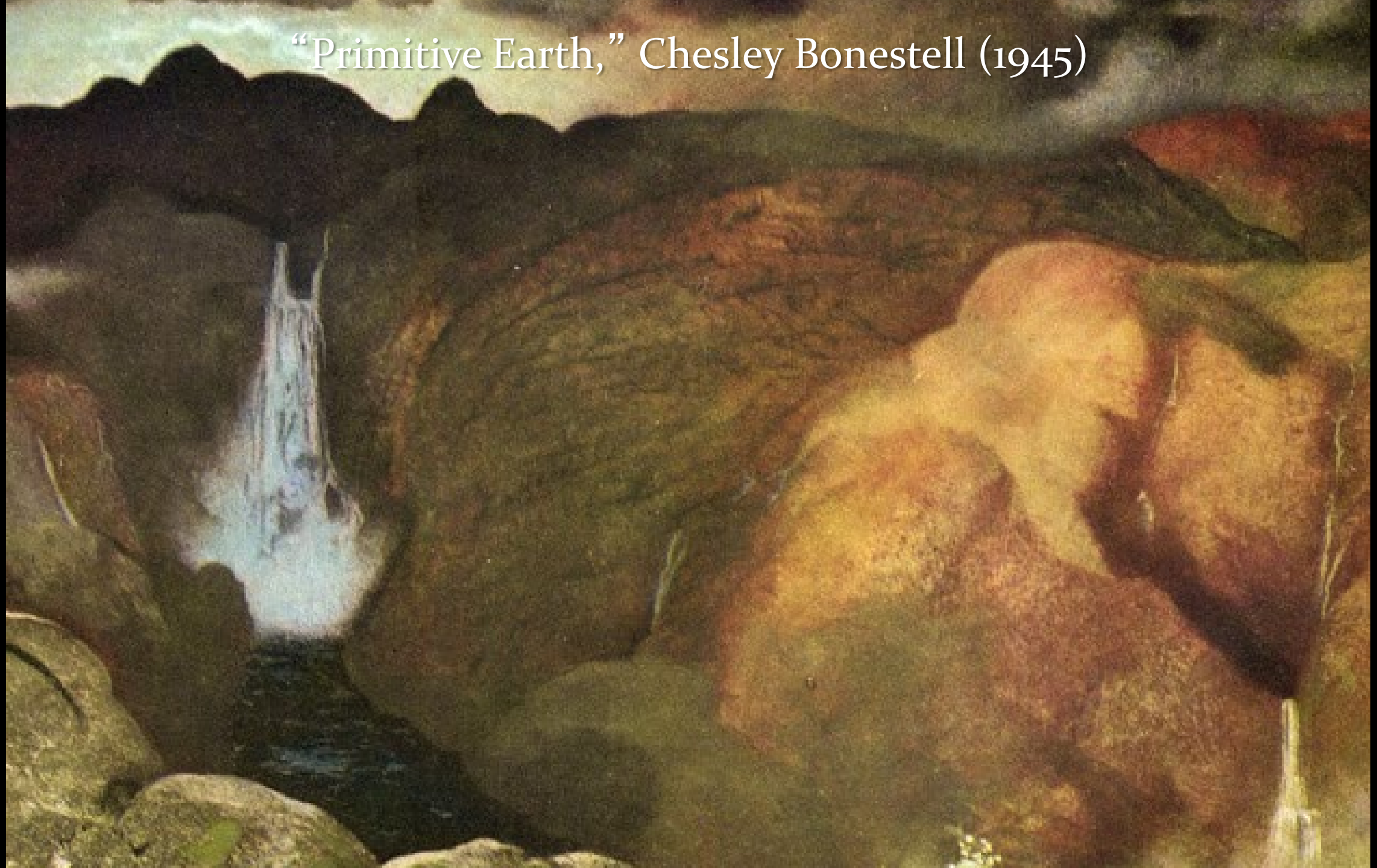
“In the Catskills,” Thomas Cole (1837)



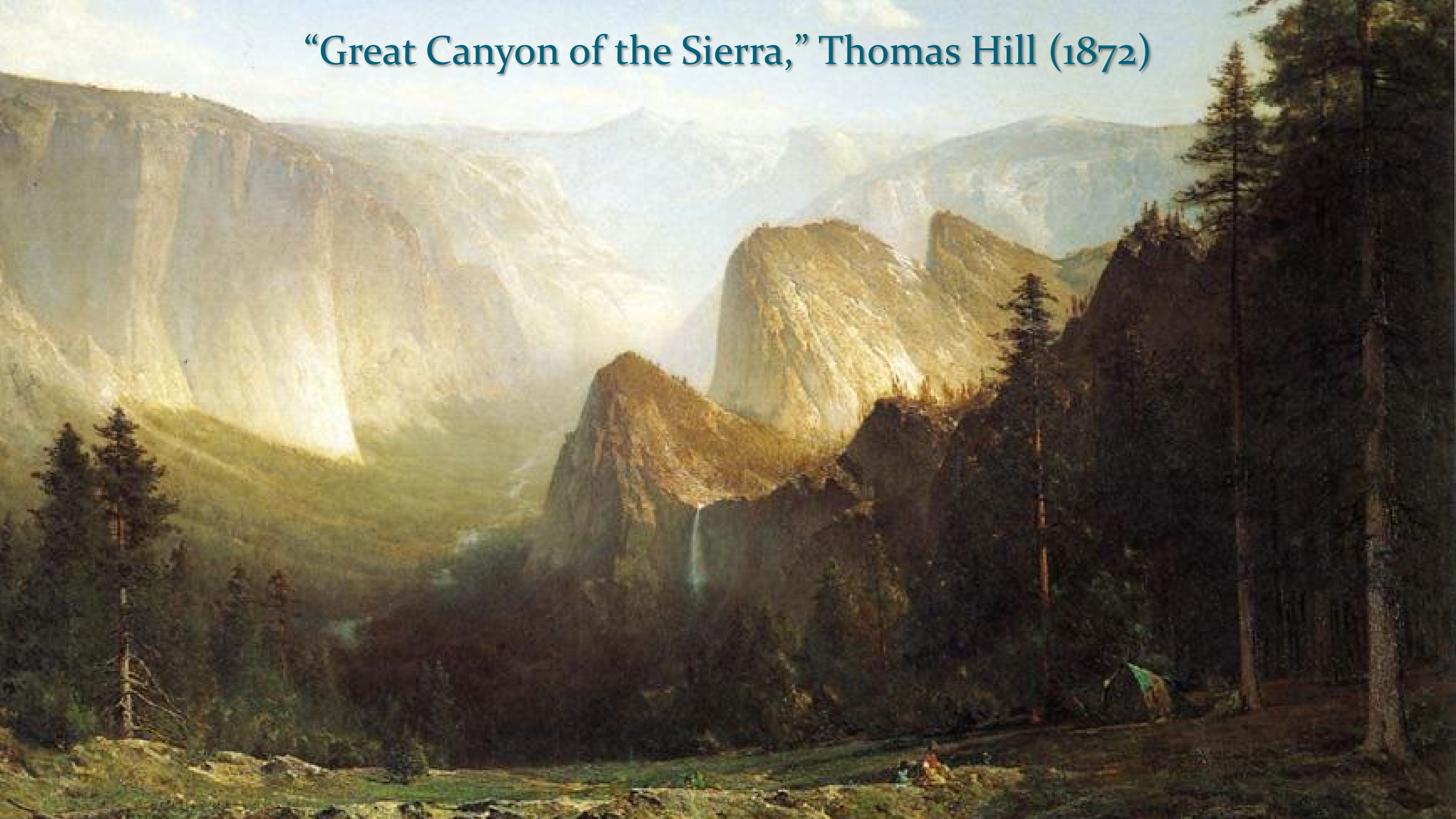
"American Progress," John Gast (1872)

“Grand Canyon of the Yellowstone,” Thomas Moran (1872)



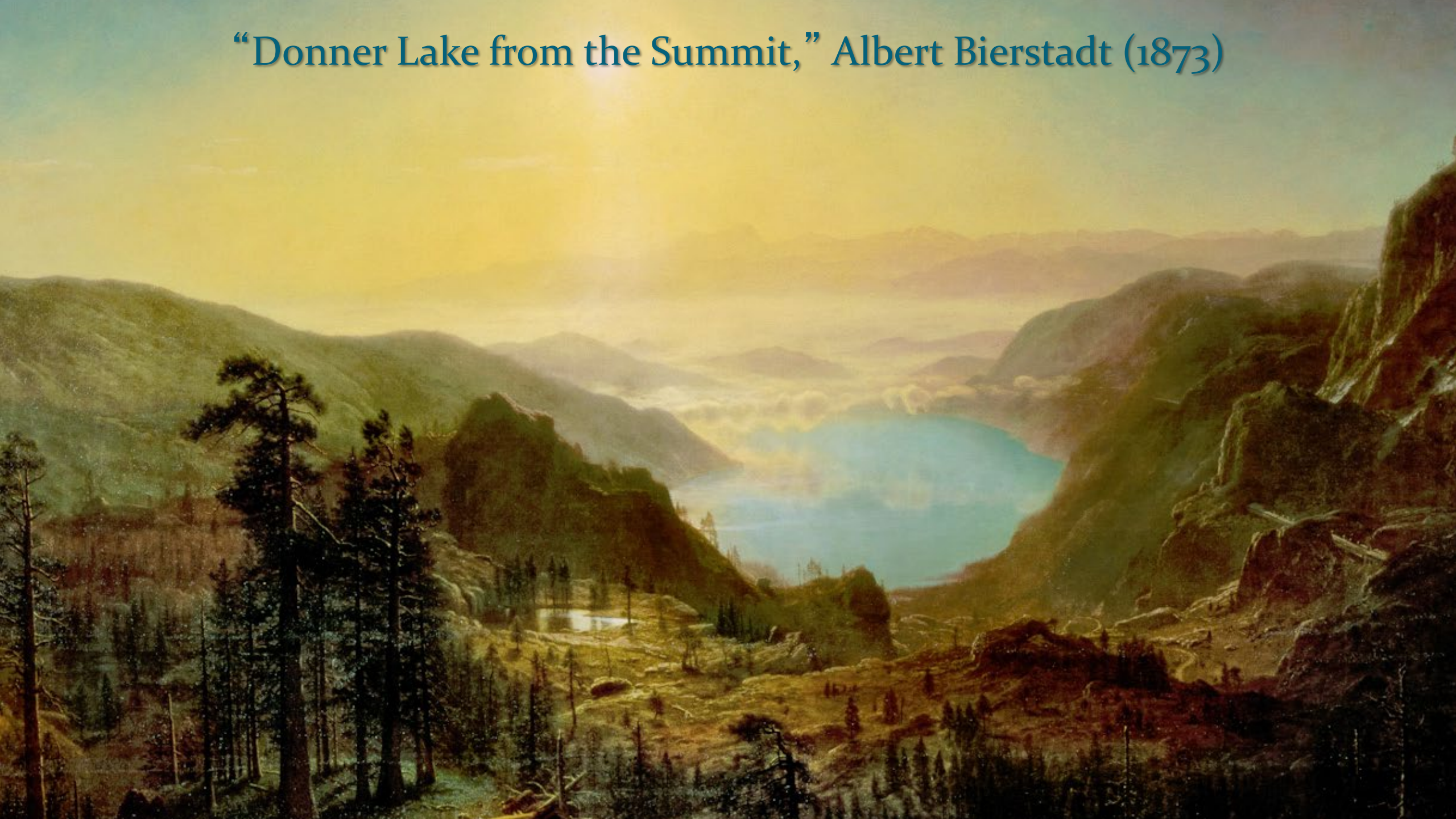


"Primitive Earth," Chesley Bonestell (1945)



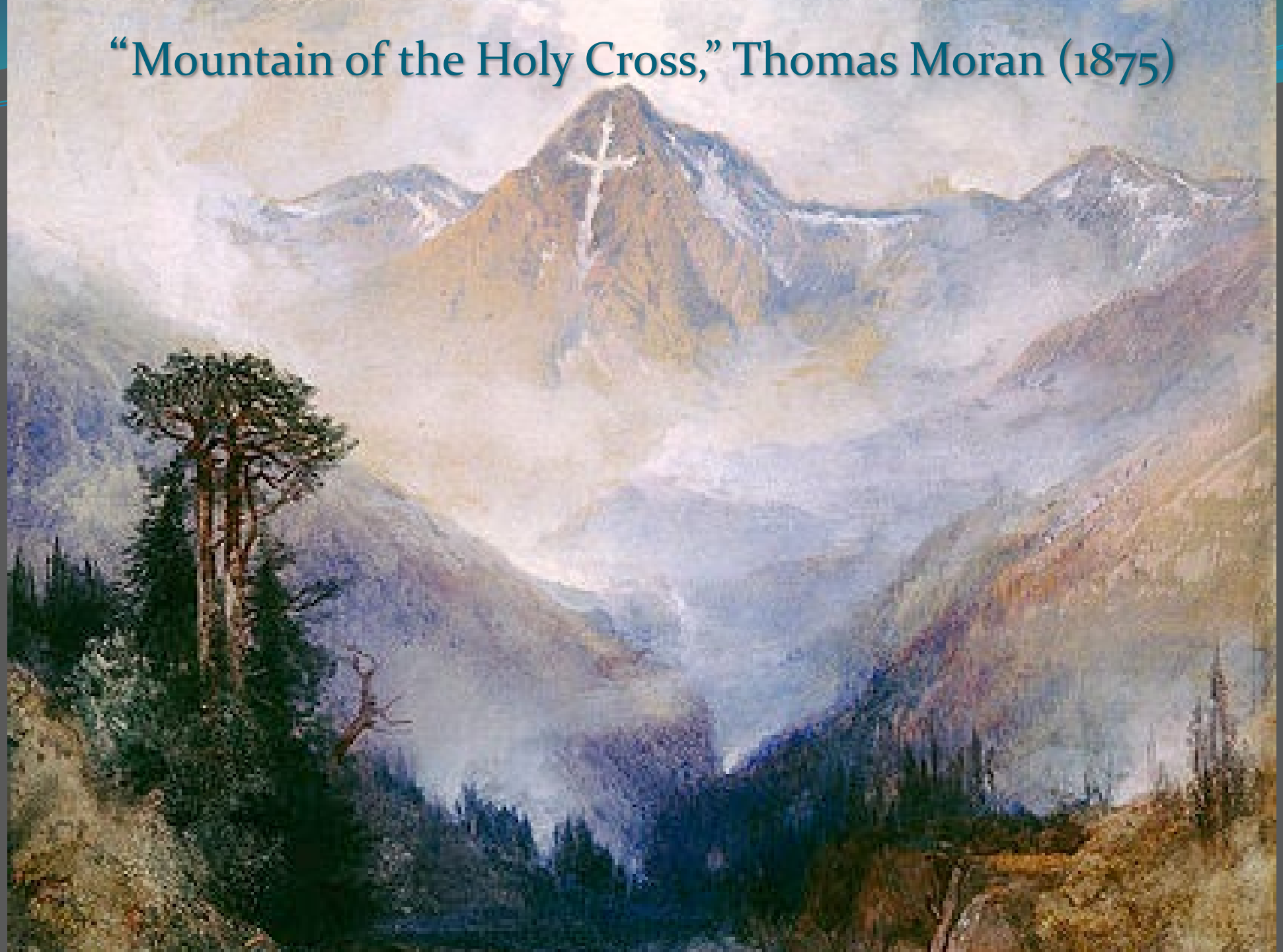
"Great Canyon of the Sierra," Thomas Hill (1872)

“Donner Lake from the Summit,” Albert Bierstadt (1873)



“San Francisco, 1849,” Chesley Bonestell (1949)

“Mountain of the Holy Cross,” Thomas Moran (1875)




“Chasm of the Colorado,” Thomas Moran (1873)

"...If mankind in its frenzy should succeed in utterly destroying itself, the destruction would create not so much as a ripple in the great universe of which we are only an insignificant part. May LIFE publish more about the universe that we may learn from its law and order to avoid war."

"The Astronomical Sublime—an extreme aesthetic experience that threatens to overwhelm even as it *affirms humanity's potential*"

~Elizabeth Kessler

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"The Journey into Space"

Von

Willy Ley

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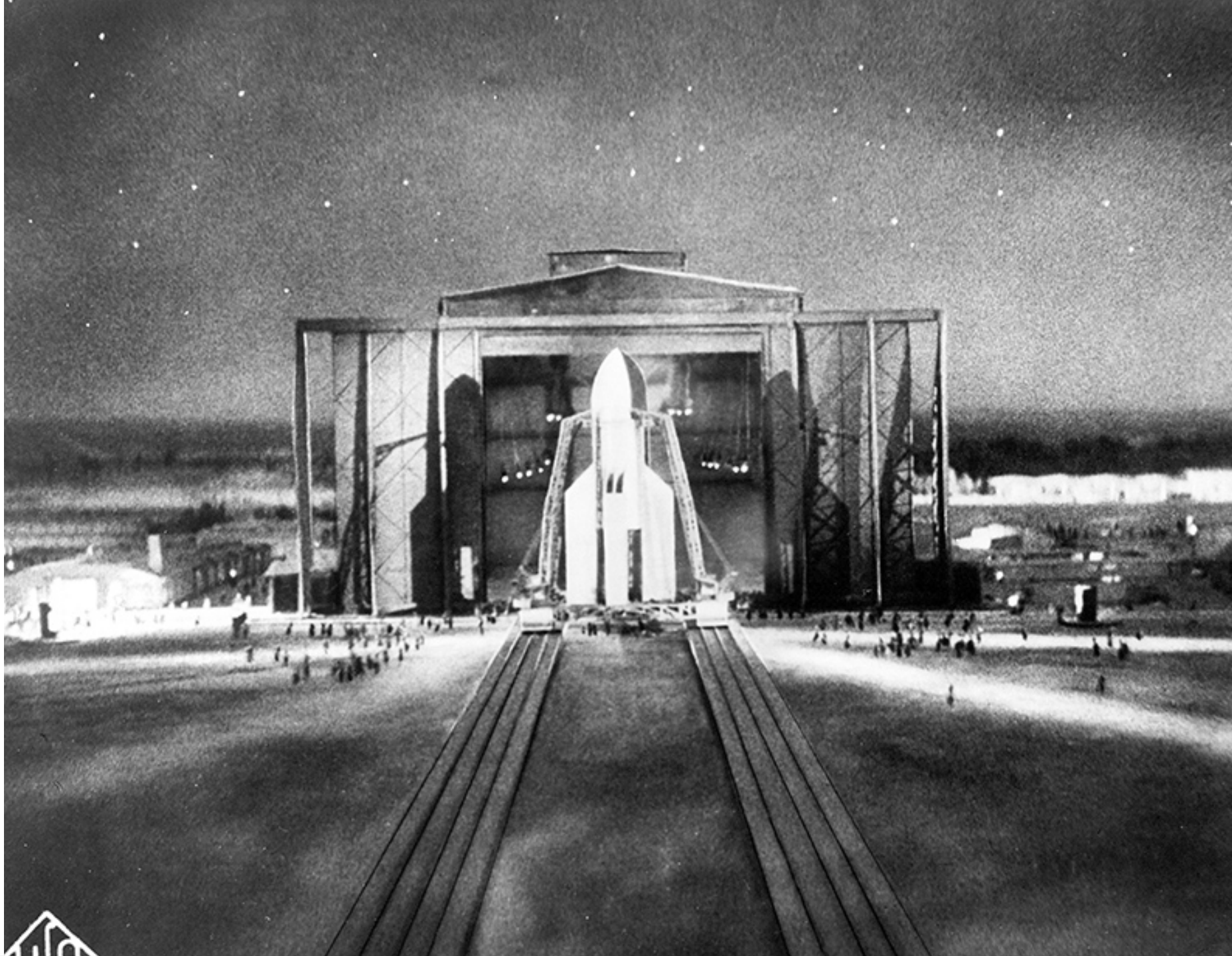

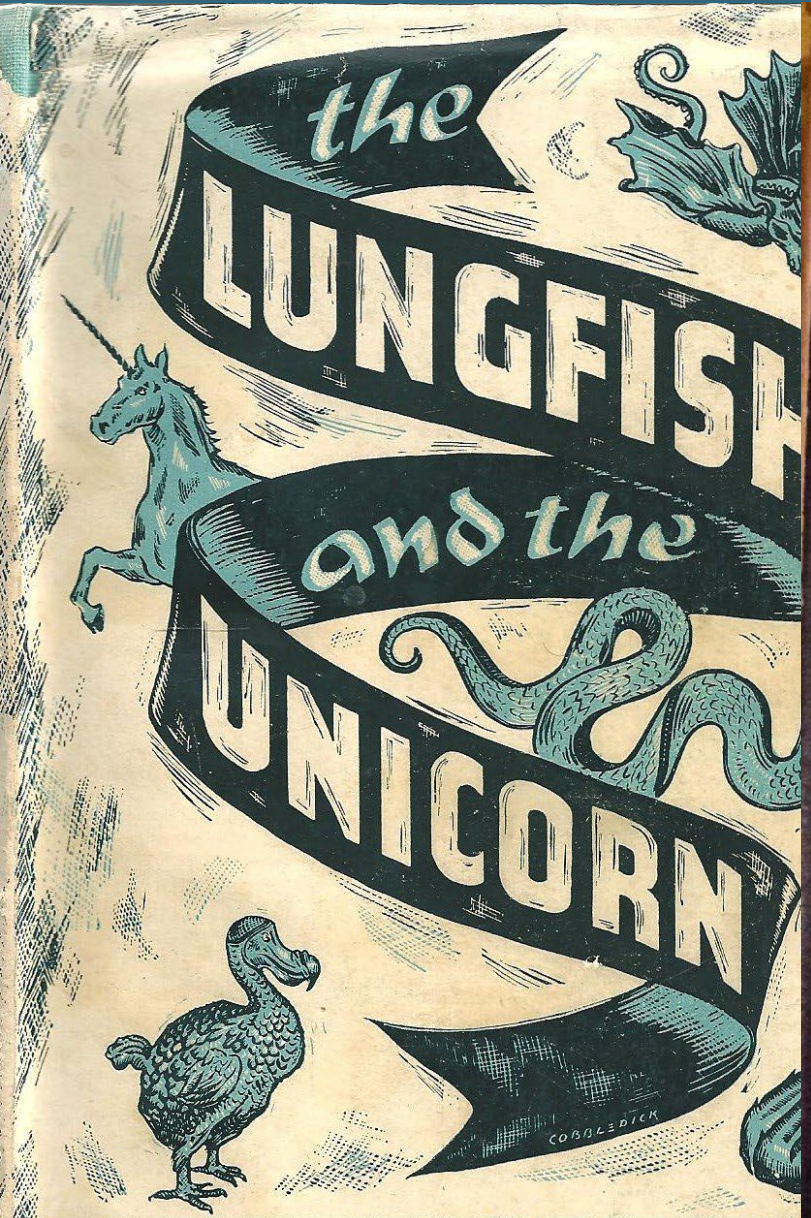
the
LUNGFISH
and the
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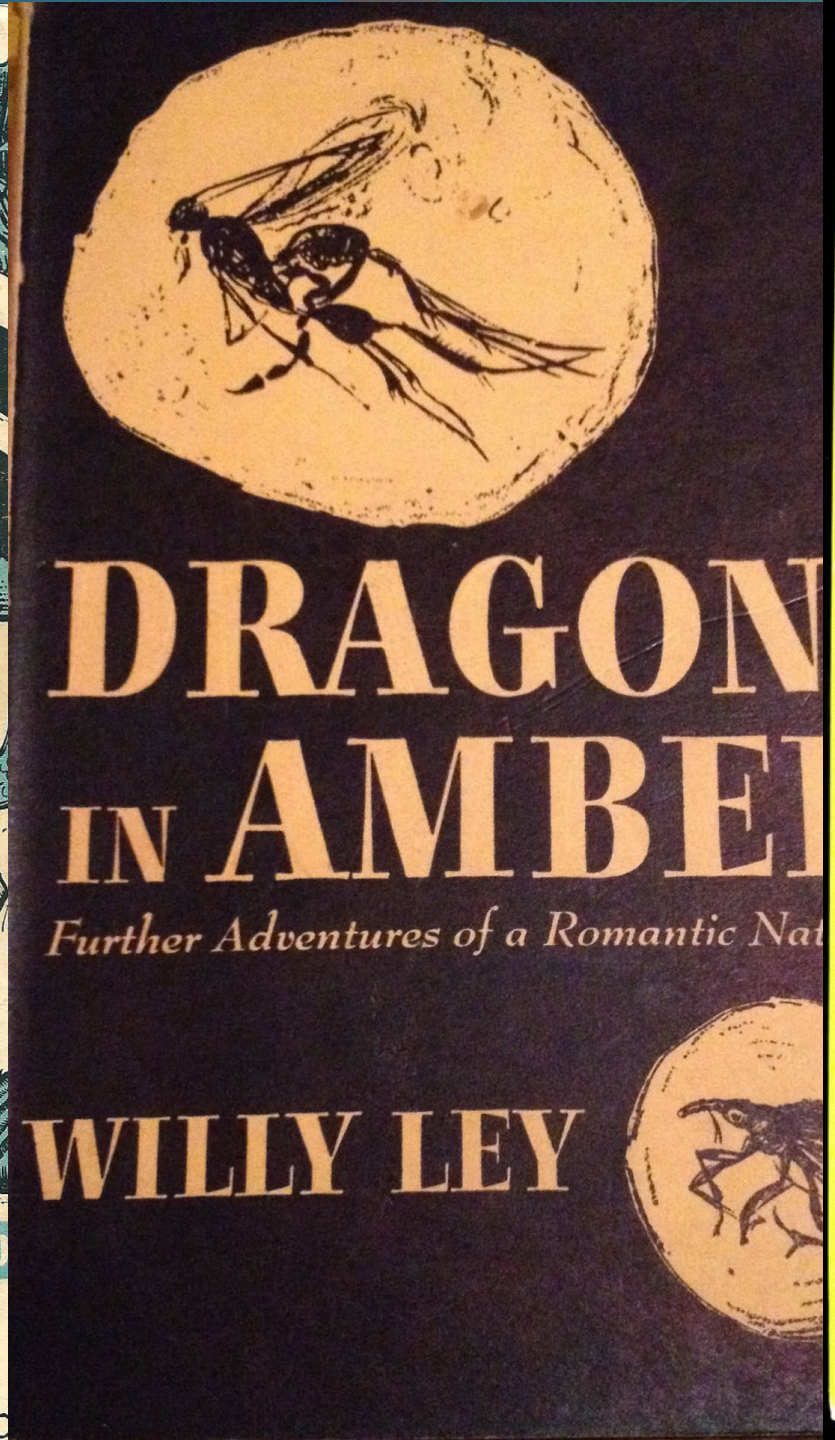
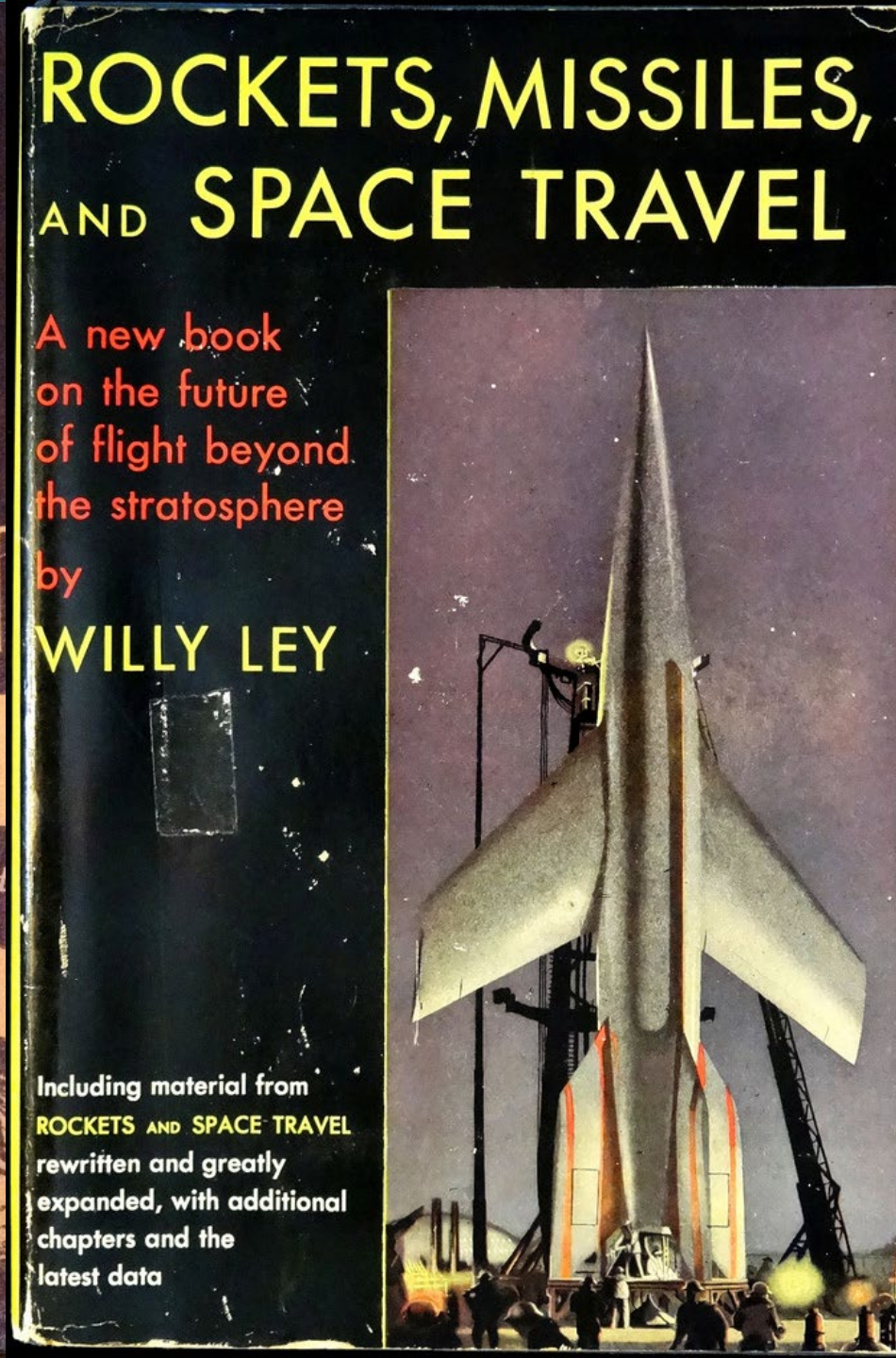
COBBLEDICK
AN EXCURSION INTO ROMANTIC ZOOLO
WILLY LEY
HUTCHINSON'S
SCIENTIFIC AND TECHNICAL PUBLICATIO


DRAGON
IN AMBE
Further Adventures of a Romantic Nat
WILLY LEY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THE CONQUEST OF SPACE

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WITH TEXT AND PICTURES BASED ON THE LATEST SCIENTIFIC RESEARCH

A PREVIEW OF THE GREATEST ADVENTURE AWAITING MANKIND
WITH TEXT AND PICTURES BASED ON THE LATEST SCIENTIFIC RESEARCH

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CHESLEY BONESTELL

TEXT BY
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THE CONQUEST OF SPACE

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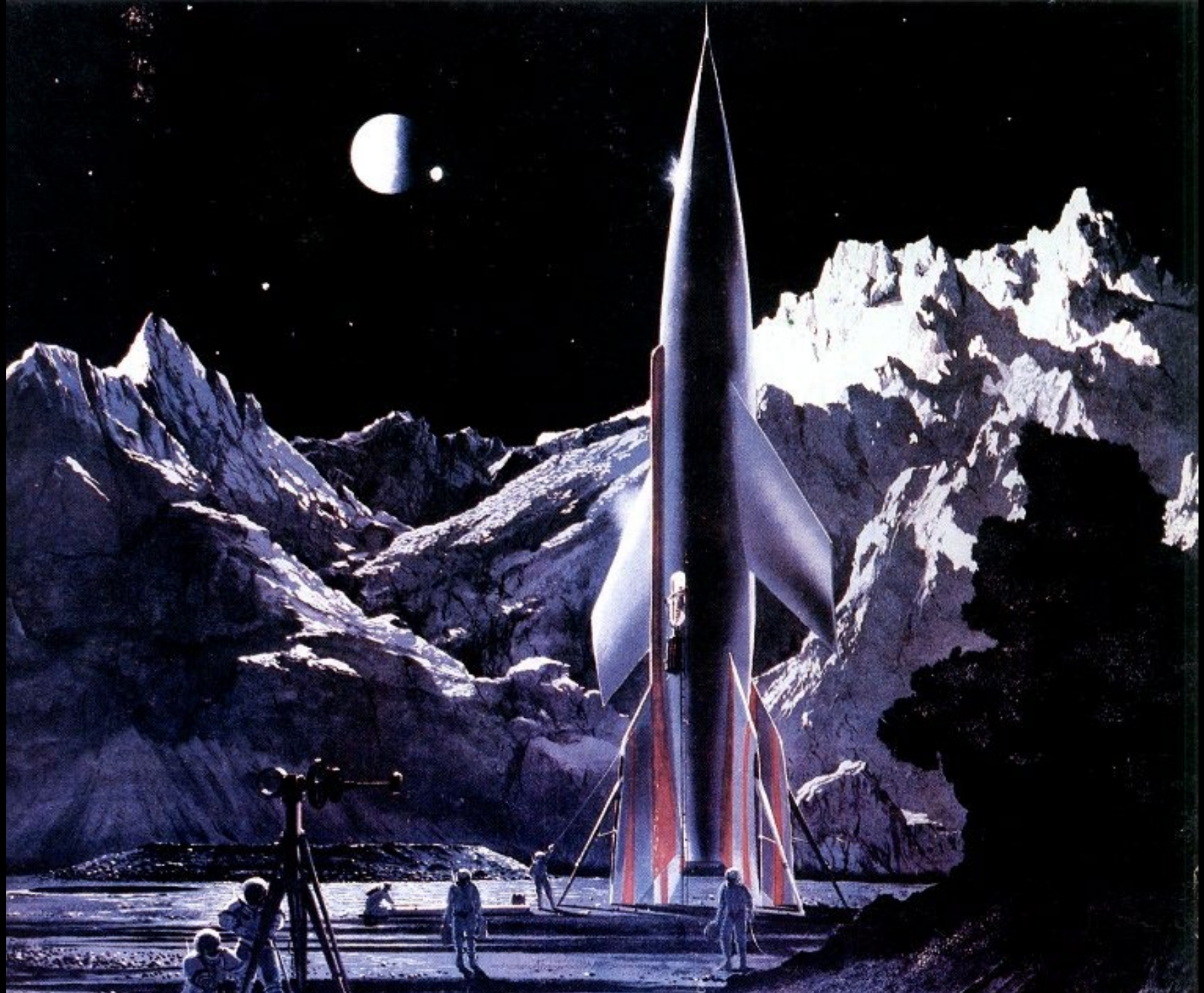
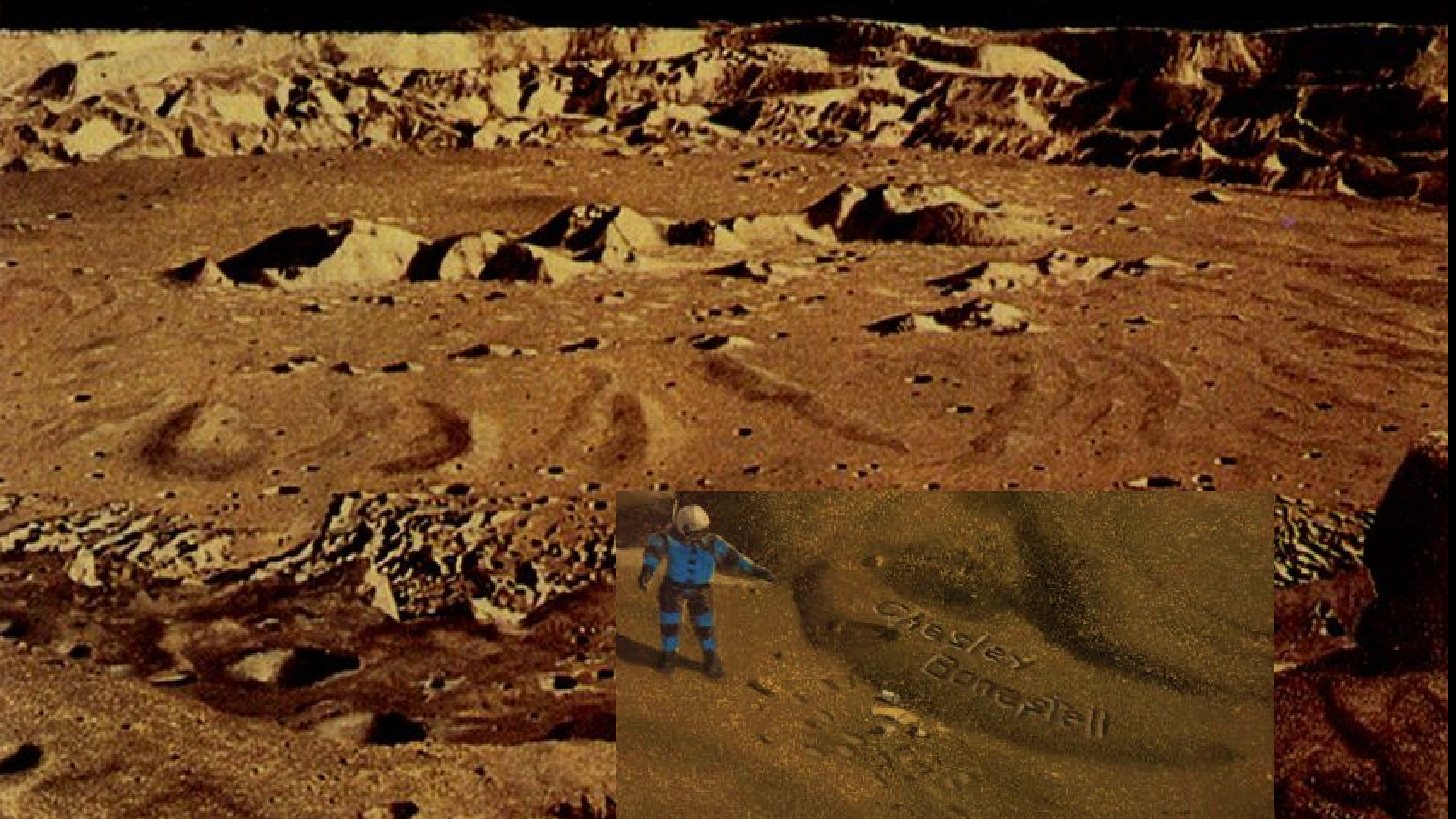
NEW YORK · THE VIKING PRESS · 1949

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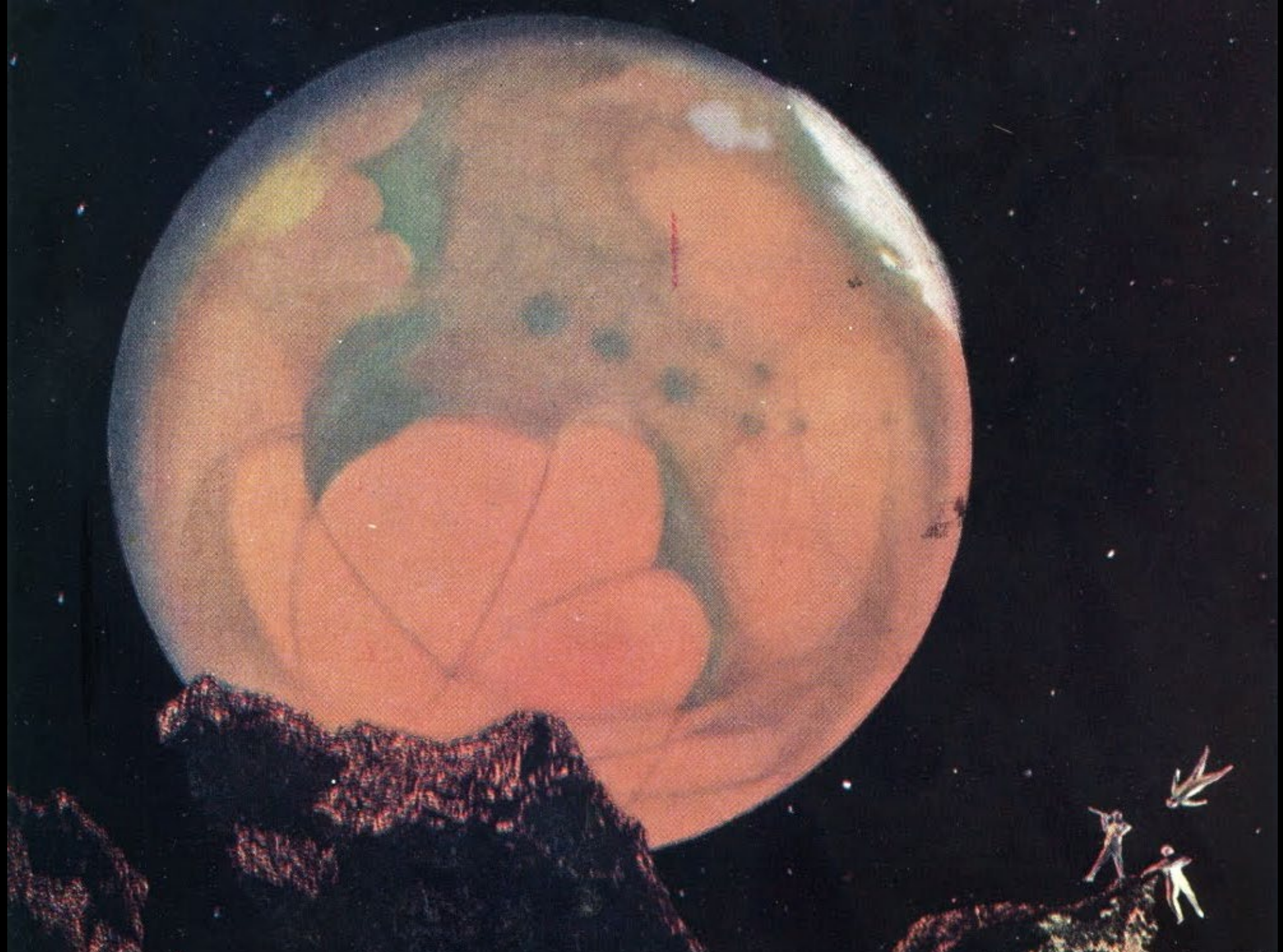
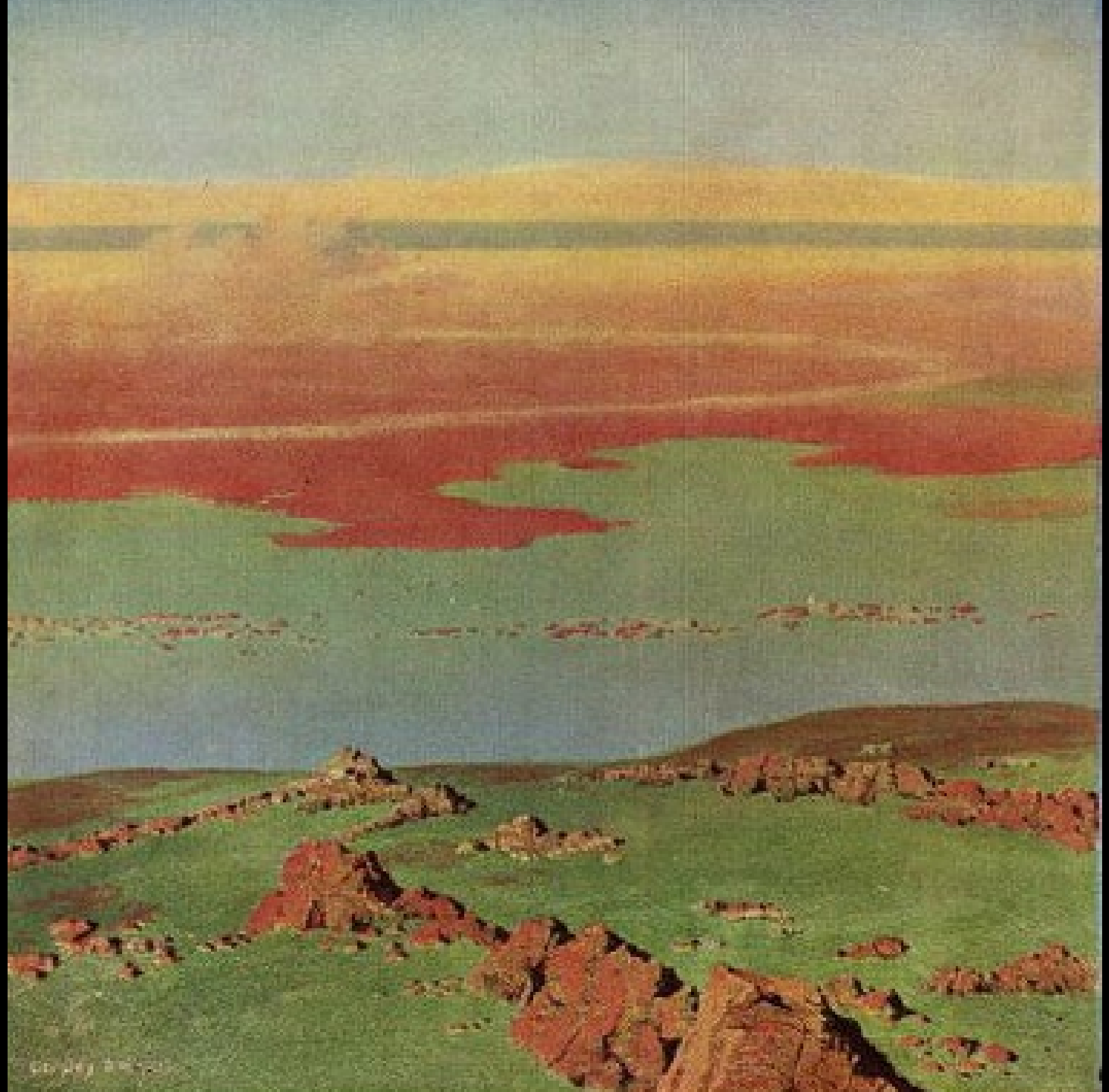
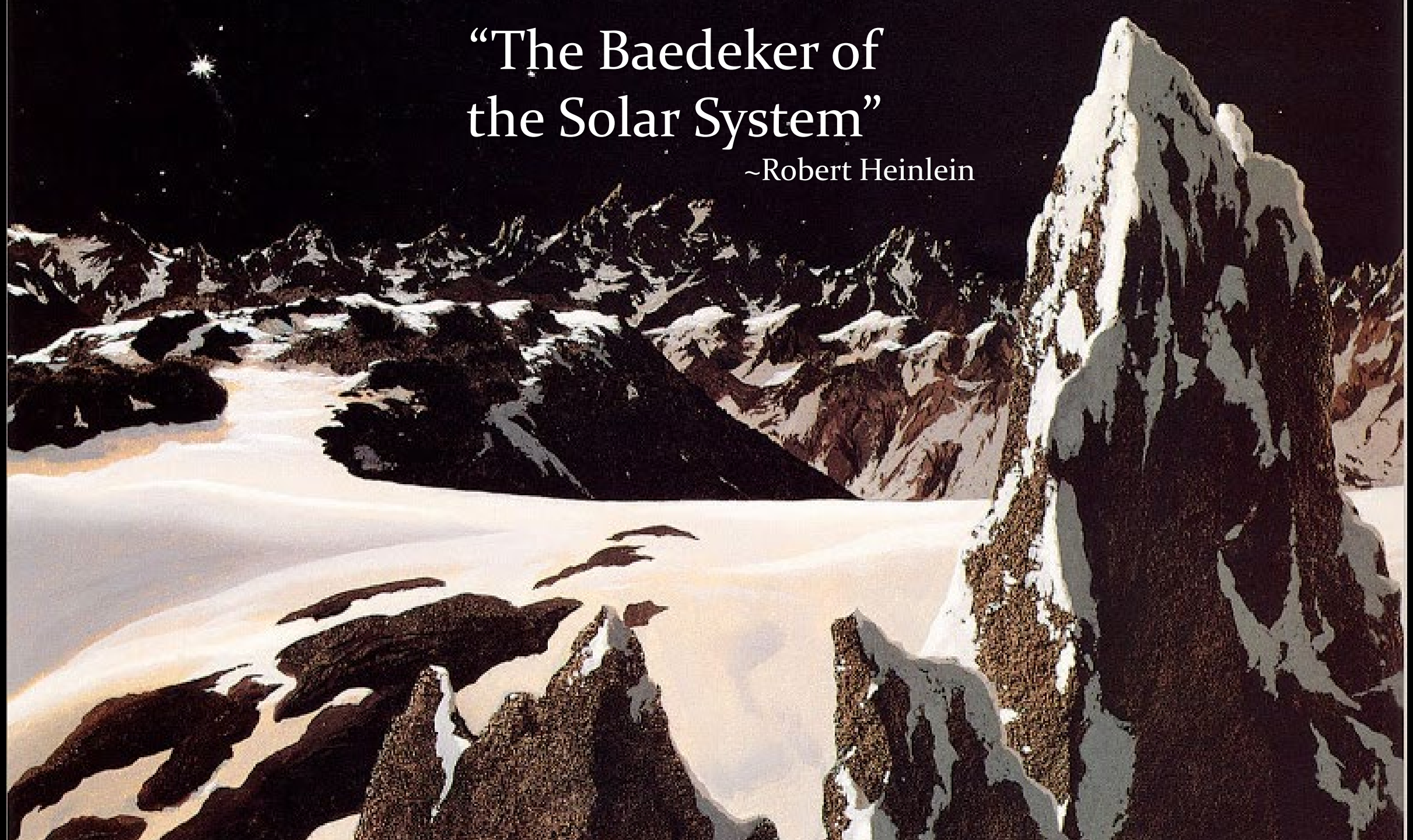
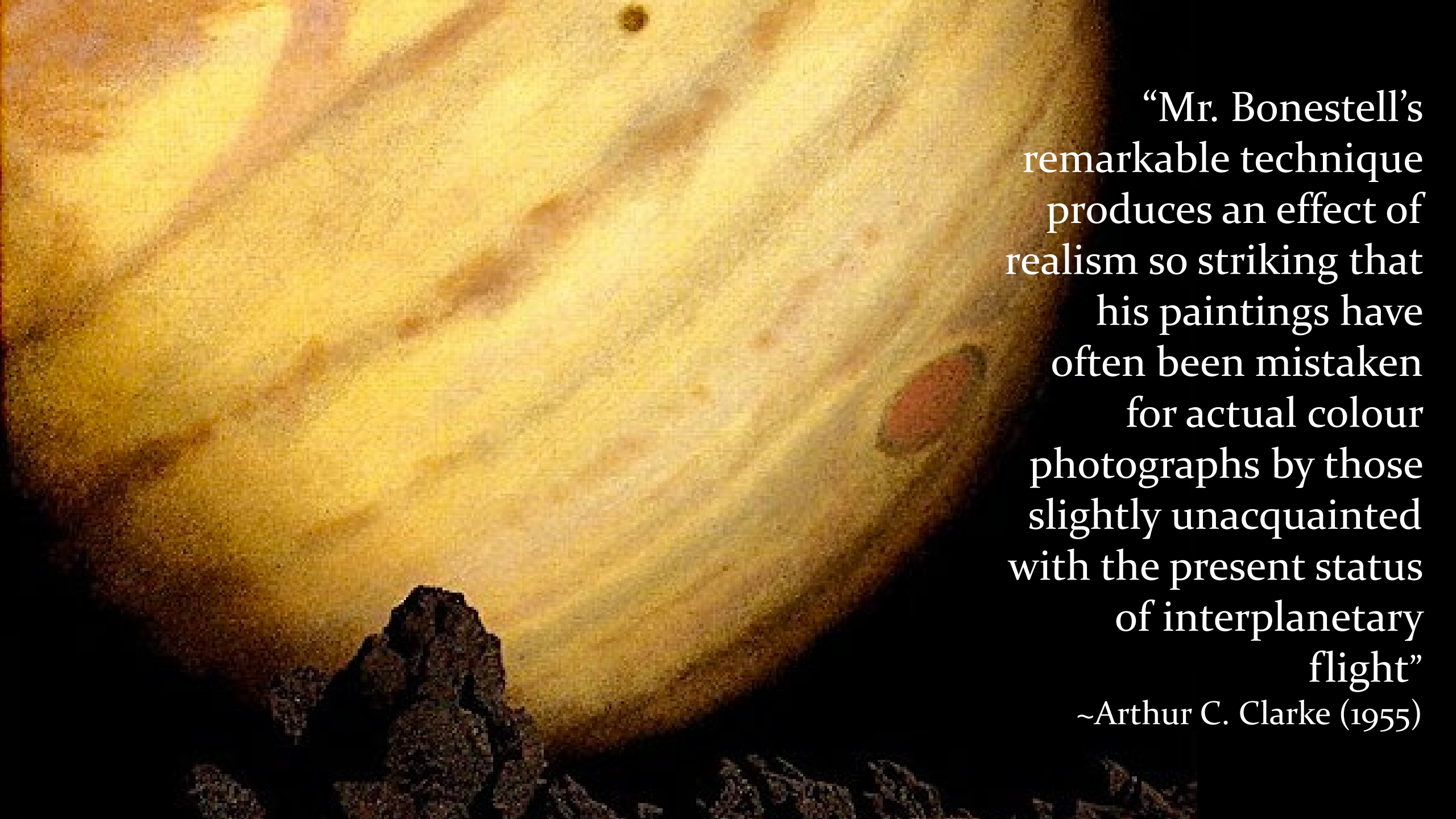





"The Baedeker of
the Solar System"
~Robert Heinlein



“Mr. Bonestell’s remarkable technique produces an effect of realism so striking that his paintings have often been mistaken for actual colour photographs by those slightly unacquainted with the present status of interplanetary flight”

~Arthur C. Clarke (1955)

Collier's

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Man Will Conquer Space Soon

TOP SCIENTISTS TELL HOW IN 15 STARTLING PAGES

MAN WILL CONQUER SPACE SOON

What Are We Waiting For?

CROSSING THE LAST FRONTIER

By Dr. WERNHER von BRAUN

Technical Director, Army Ordnance Guided Missiles Development Group, Huntsville, Alabama

Scientists and engineers now know how to build a station in space that would circle the earth 1,075 miles up. The job would take 10 years, and cost twice as much as the atom bomb. If we do it, we can not only preserve the peace but we can take a long step toward uniting mankind

Collier's for March 22, 1952

“Crossing the Last Frontier”

A Station in Space

A self-contained community, this outpost in the sky will provide all of man's needs, from air conditioning to artificial gravity

By WILLY LEY
Noted Rocket Scientist and Author

WHEN man first takes up residence in space, it will be within the spinning hull of a wheel-shaped structure, rotating around the earth much as the moon does. Life will be cramped and complicated for space dwellers; they will exist under conditions comparable to those on a modern submarine. This painting, which is scientifically accurate, shows how the spacemen will live and work inside their whirling station.

The wheel's movement around its hub will provide centrifugal force as a substitute for gravity in weightless space; however, this "synthetic gravity" will not be equal in all parts of the station, since the amount of spin will decrease toward the center. Thus, the topmost of the three decks (the one on the inside of the wheel) will have the least gravity, and the hub itself will have virtually none.

At the extreme left of the painting (below), on the top deck, is the communications center, which maintains radio contact with the earth, with rocket ships in space, and with the space taxis that carry men from rocket ship to space station. Below the communications room, meteorologists chart the weather for the entire earth; on the lowest deck at extreme left is a bunk room.

Next door to the communications and weather sections is the earth observation center, occupying two decks. On the top deck is a large movable map on which "ground zero," the territory the station is passing over at the moment, is spotted. Immediately below the map is a telescopic enlargement of ground zero. Under this, on the center deck, are additional telescopic screens showing other territory (figures over each screen refer to the amount of territory covered by the picture, not to the apparent distance away from the scene).

The electronic computer on the top deck, between the earth observation and celestial observation centers, solves complicated mathematical problems. The large screen in the celestial observation room enables astronomers to study enlarged photographs taken from the satellite's tiny sister station, the observatory. The bottom deck contains a photographic darkroom and part of the system which recovers and purifies waste water.

The next section over is devoted to the handling of cargo. Material arrives from the hub by elevator, and is distributed from the loading room in accordance with decisions made by the weight control center, which is charged with preserving the station's balance. Fuel storage and air-conditioning return ducts are located under this area.

The layers of skin enclosing the space station are shown covering part of the loading area. The outer skin, or meteor bumper, is attached to the inner skin by studs. The view ports are of plastic, tinted to guard against radiation; protective lids are lowered when the windows are not in use. The two black squares, which absorb the sun's heat and warm the satellite, have shutters to control heat absorption. On the meteor bumper wall are hook-on rings, to which spacemen tie lines while outside, to keep from floating away into space.

The sections beyond the pump room (top deck) form the heart of the system which keeps the space station supplied with air. The air control room regulates air peessures in the satellite. The components of the air mixture are determined by chemists in the air testing laboratory. In the room housing the air-conditioning machinery, the interior wall of the space station's inner rim is cut away to show secondary cables and ducts, which furnish power, air and the like, when the main system (right, overhead) fails.

The trough and pipe in the extreme upper-right corner of the picture are a part of the satellite's power plant. The trough is polished to catch the rays of the sun; the heat thus obtained is picked up by mercury in the tube. The mercury, emerging as hot vapor in the room below, drives a turbo-generator.

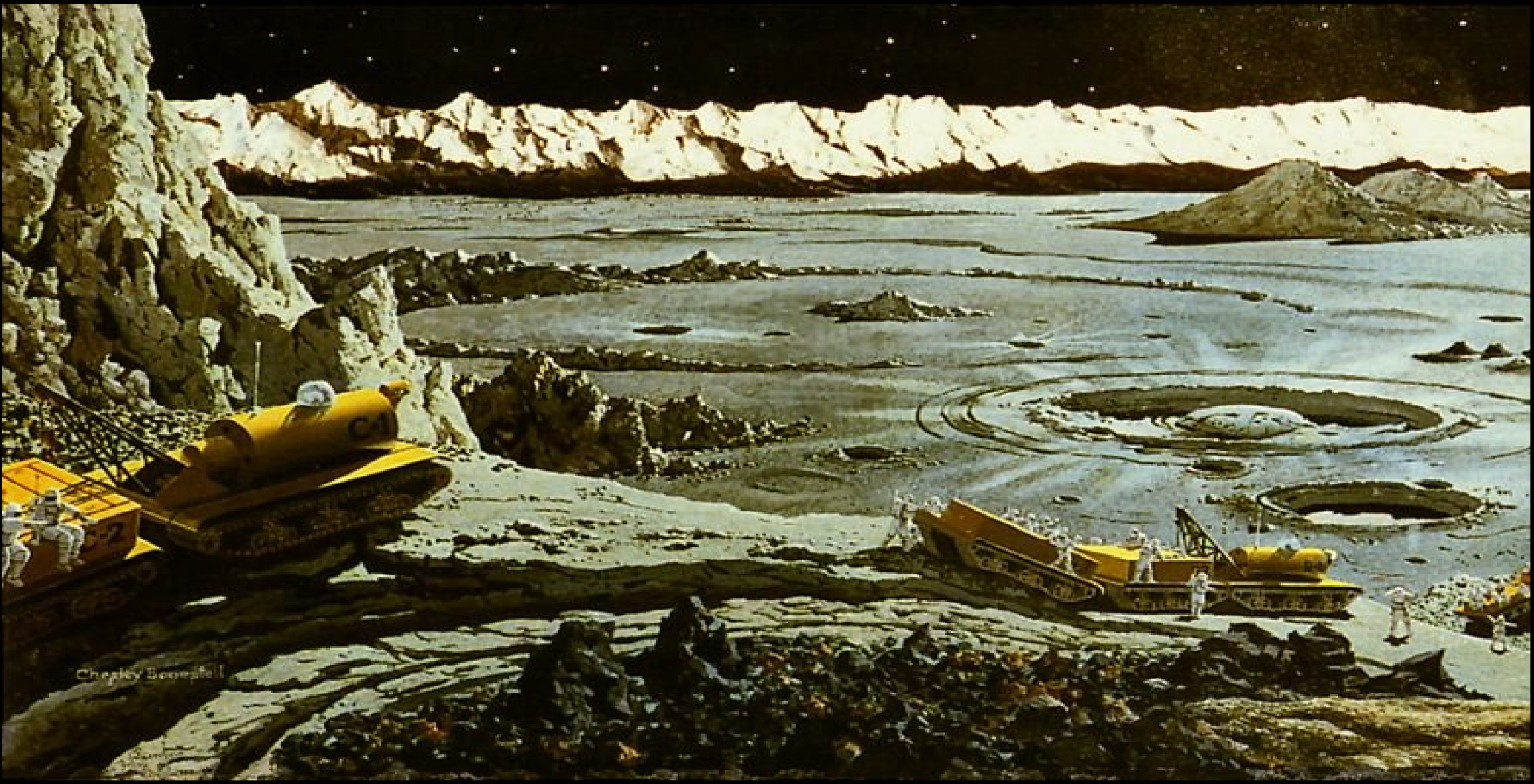
Inside the shaft which leads to the satellite's hub is a landing net to assist men in moving into and out of the gravity-free area. Since the hub is the center of all entrances, departures and loadings, it is kept fairly clear, except for the space station's supply of pressurized suits. At the top and bottom of the rotating hub are turrets which can be turned so space taxis can land in the bell-shaped landing berths. The taxi's body seals the turret shut, and the men move to the space station proper through air locks.

This drawing, of course, shows only a part of the space station. Its many other sections also contain equipment, supplies and living quarters. Balance must be carefully maintained, with each section painstakingly adjusted to the same weight as the section diametrically opposite it on the wheel. If this were not done, the revolving station might wobble, making the synthetic gravity uneven, disturbing the delicate measurements of the scientists within—and weakening the entire structure dangerously. ▲▲▲

PAINTING BY FRED FREEMAN

“Man on the Moon,” October 18, 1952

“More About Man on the Moon,” October 25, 1952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Can We Get to Mars?

Is There Life on Mars?

SPECIAL REPORT

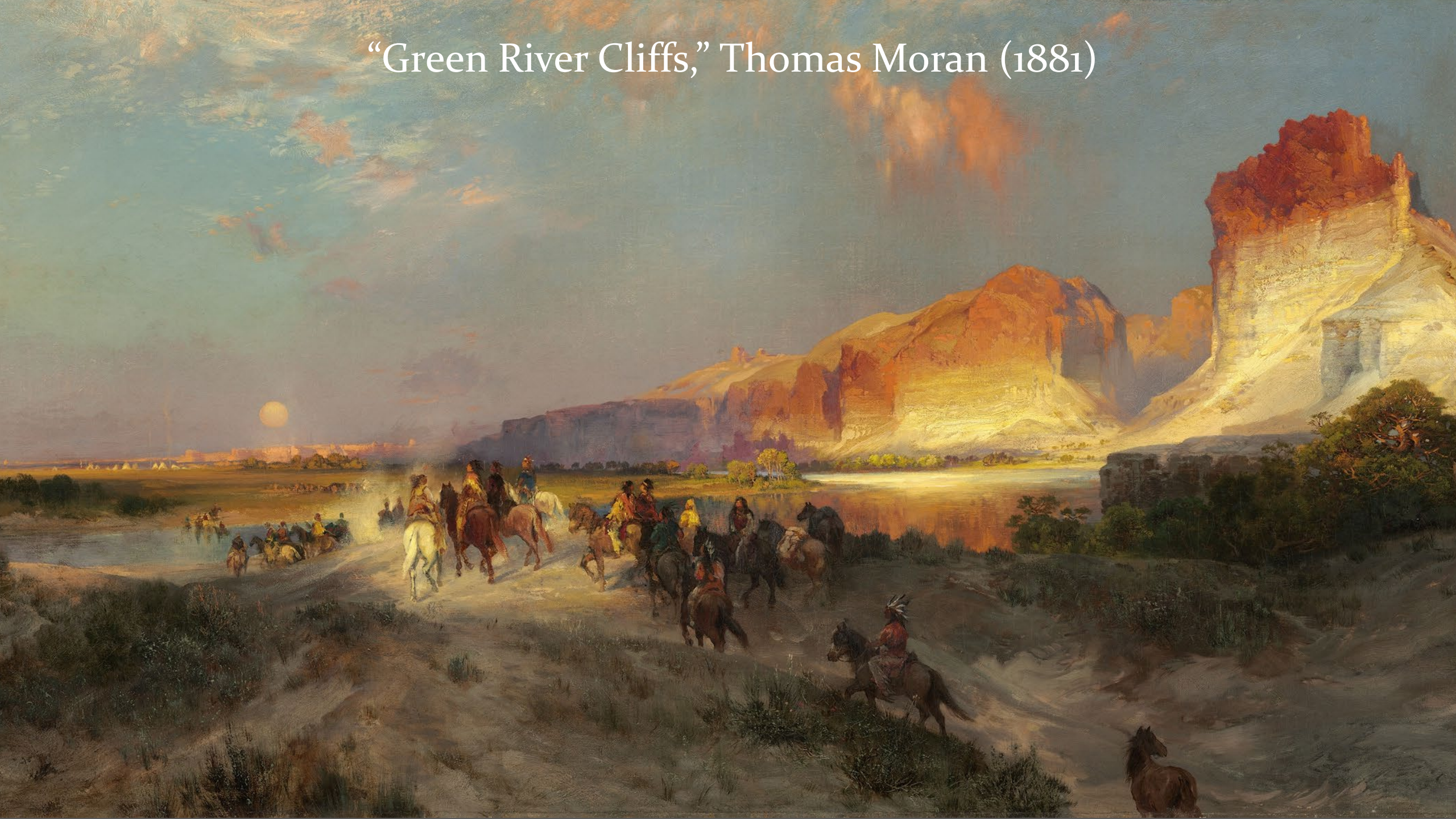
How Your Town Can AVOID A Recession

8 Danger Signals To Watch For

10 Specific Steps To Prevent Trouble


“Can We Get to Mars?”,
April 25, 1954

The Eternal Return…


“Green River Cliffs,” Thomas Moran (1881)

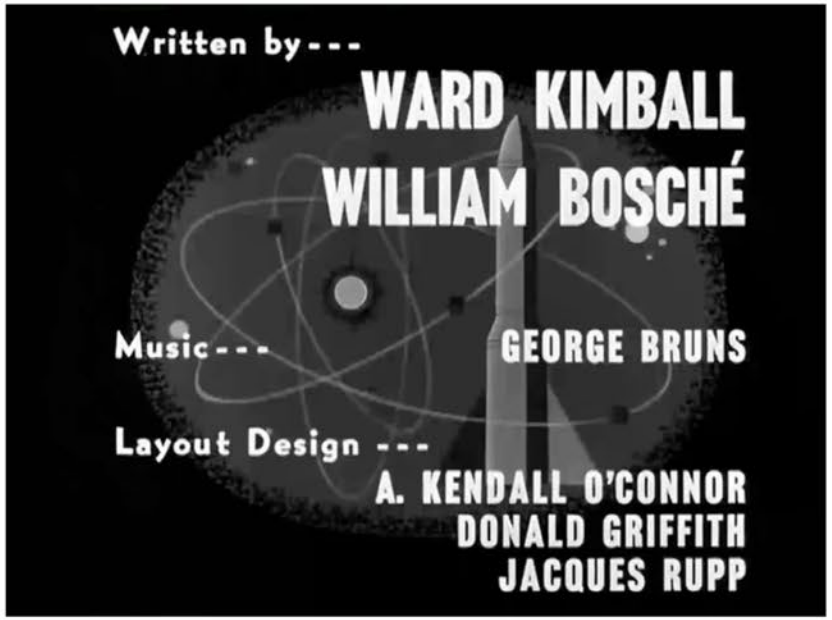

TWA

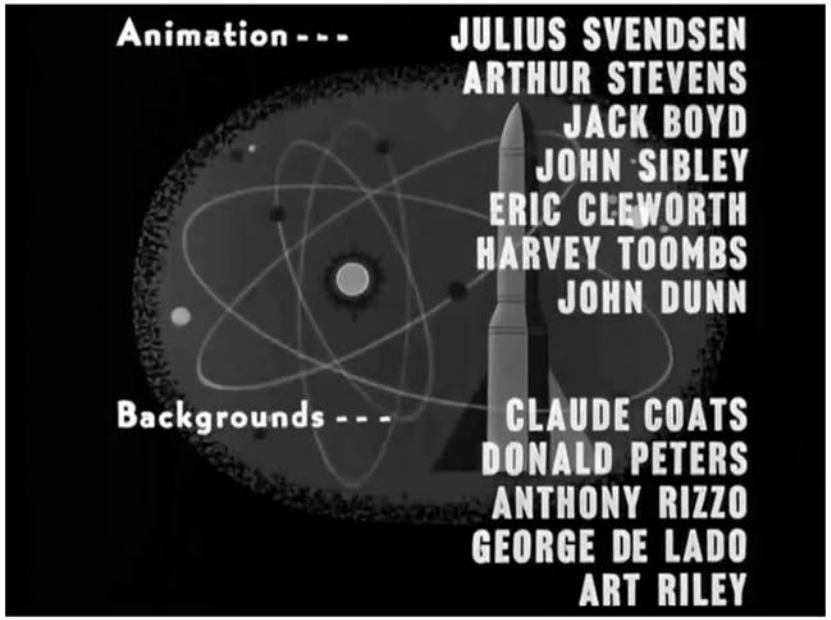

man
in
space


man
and the
moon


MARS
AND
BEYOND

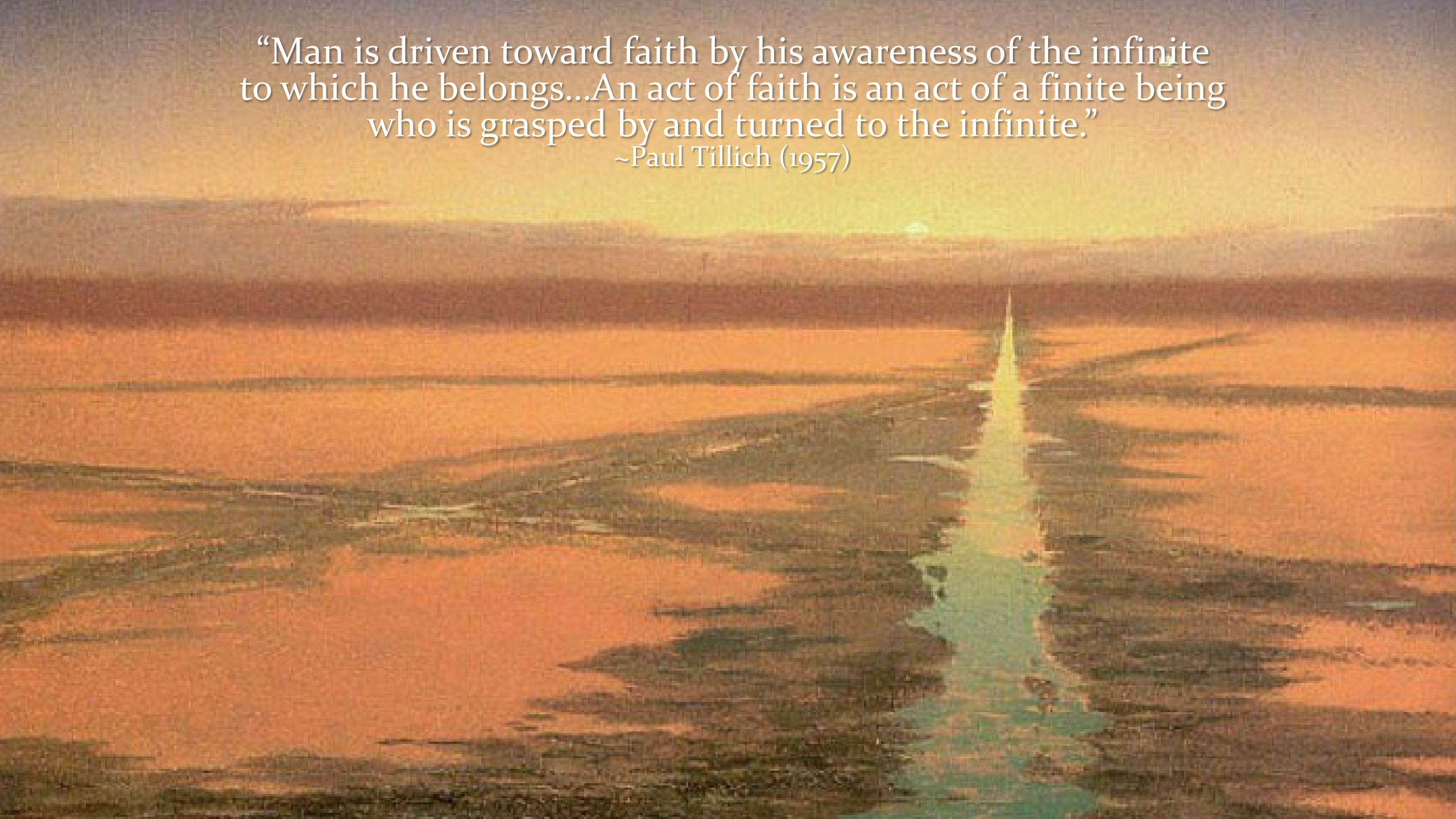

Produced and Directed by
WARD KIMBALL

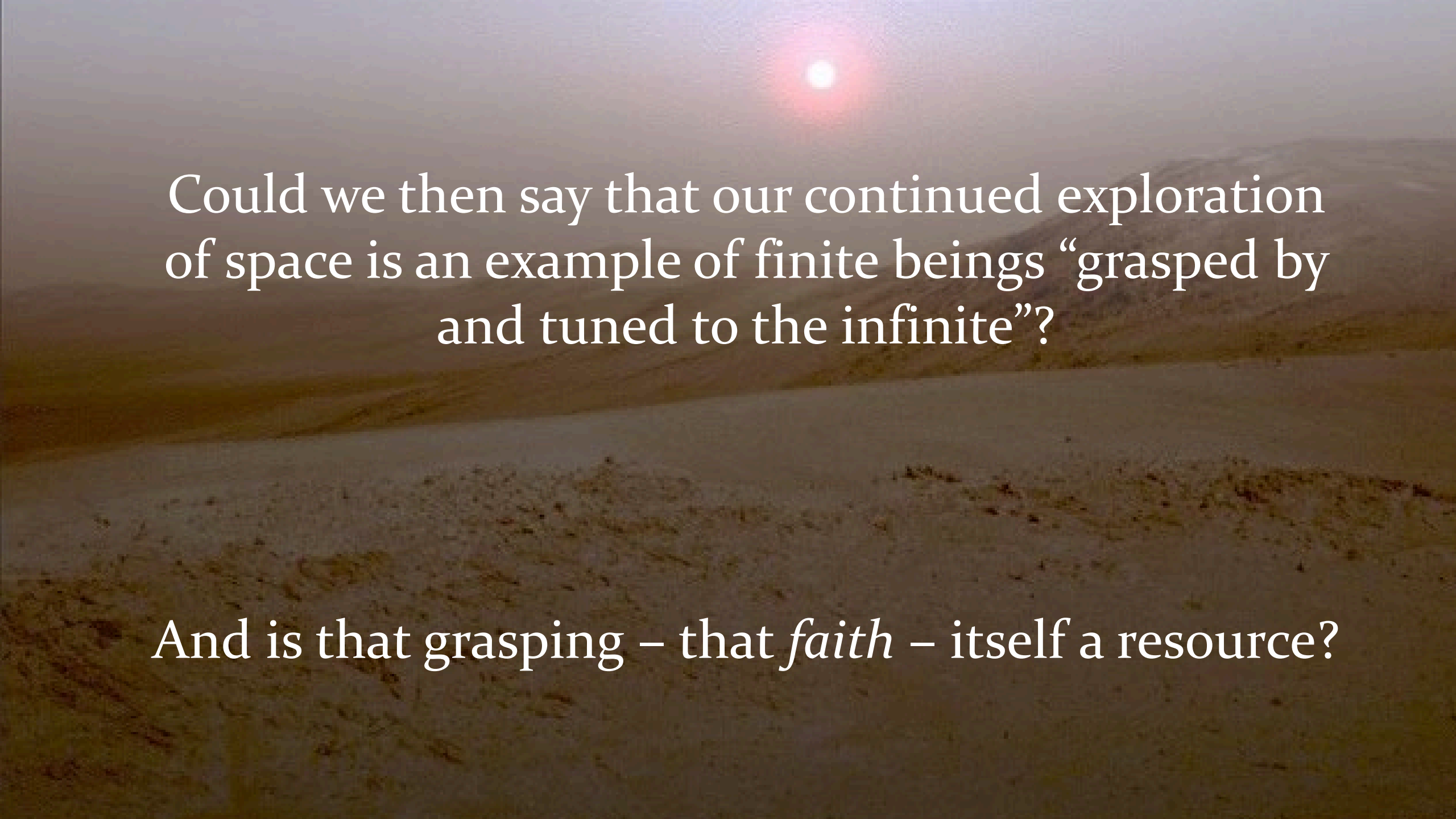

Written by - - -
WARD KIMBALL
WILLIAM BOSCHÉ
Music - - -
GEORGE BRUNS
Layout Design - - -
A. KENDALL O'CONNOR
DONALD GRIFFITH
JACQUES RUPP

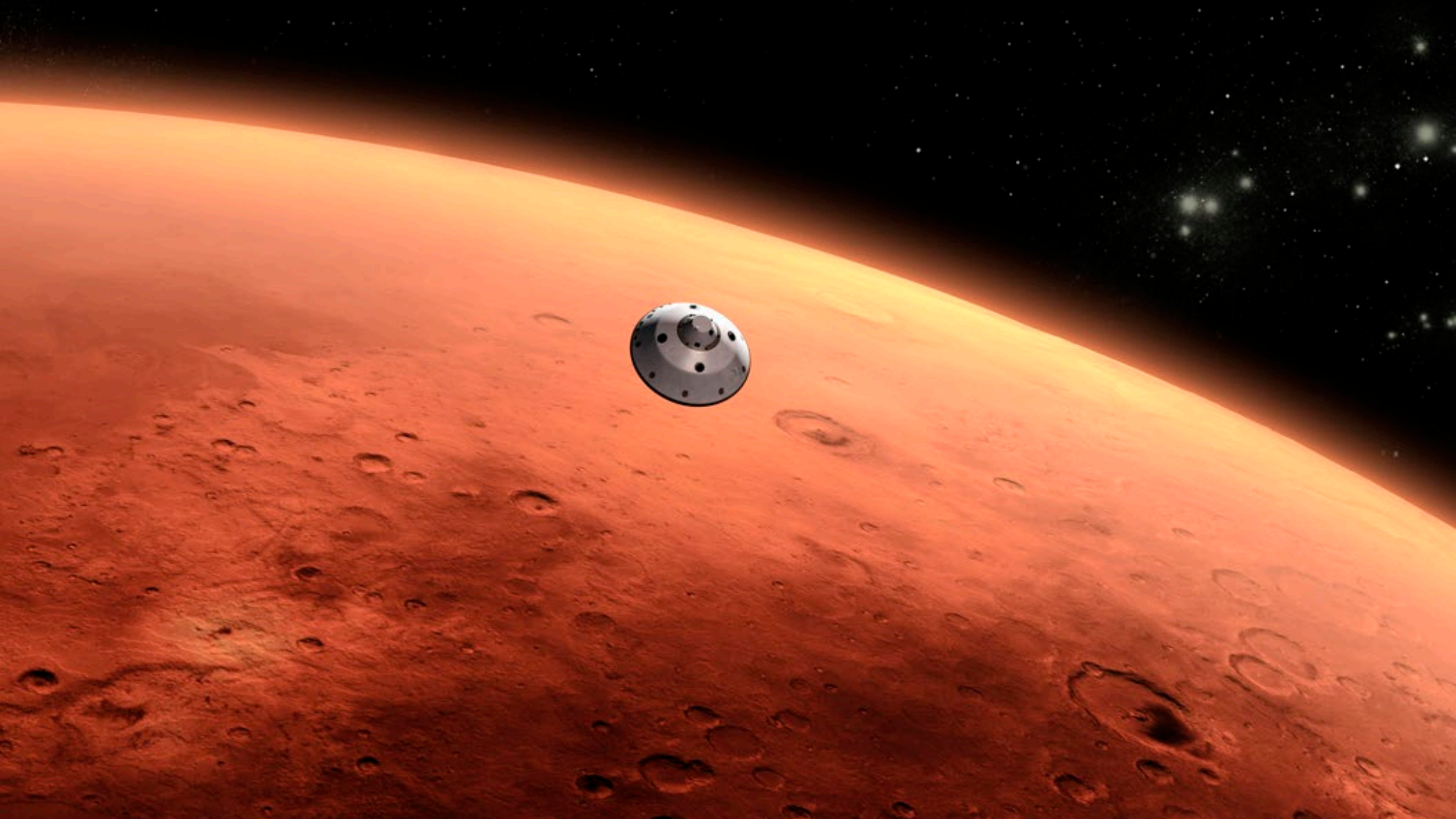

Animation - - -
JULIUS SVENDSEN
ARTHUR STEVENS
JACK BOYD
JOHN SIBLEY
ERIC CLEWORTH
HARVEY TOOMBS
JOHN DUNN
Backgrounds - - -
CLAUDE COATS
DONALD PETERS
ANTHONY RIZZO
GEORGE DE LADO
ART RILEY

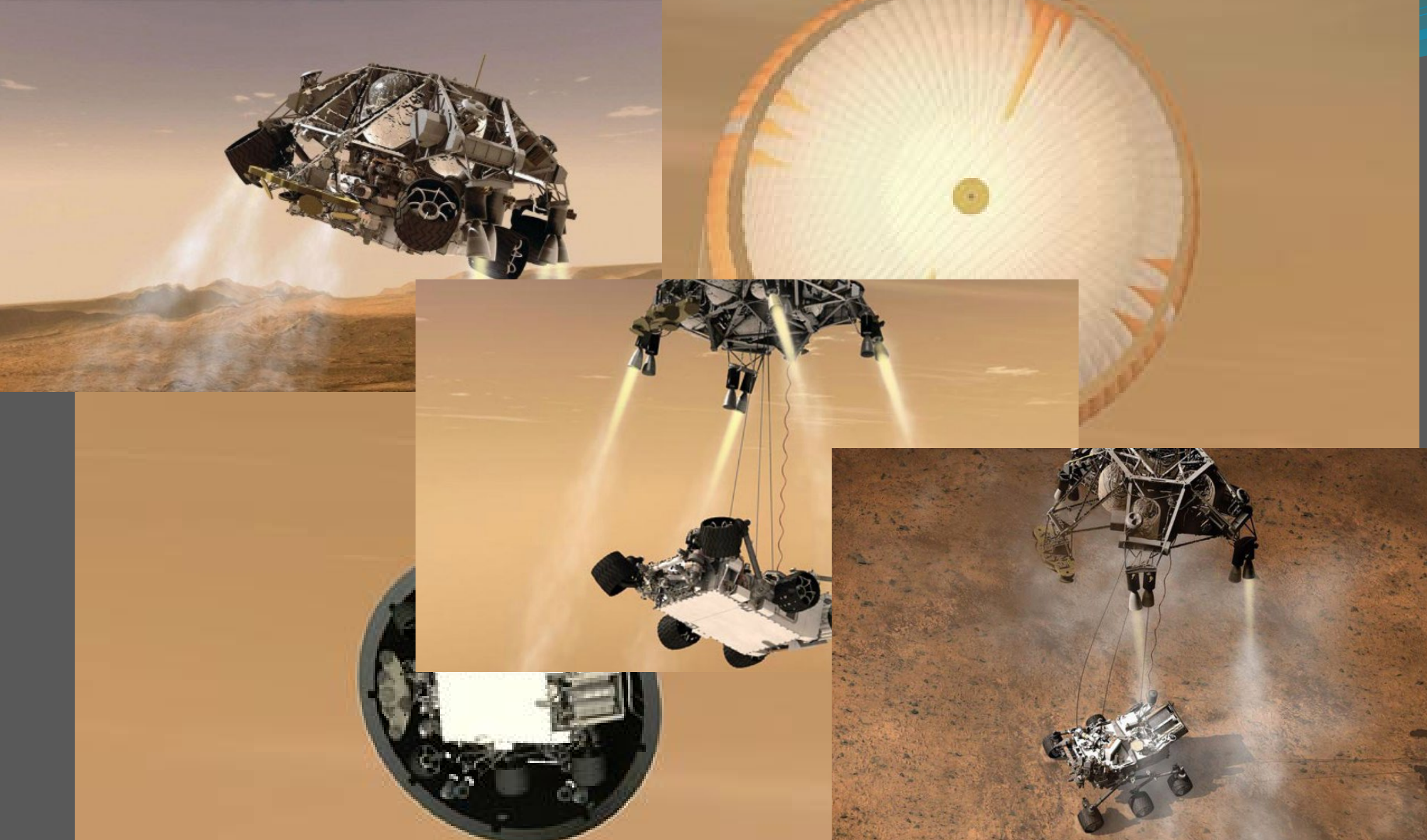
Disneyland, "Man in Space" (1955)

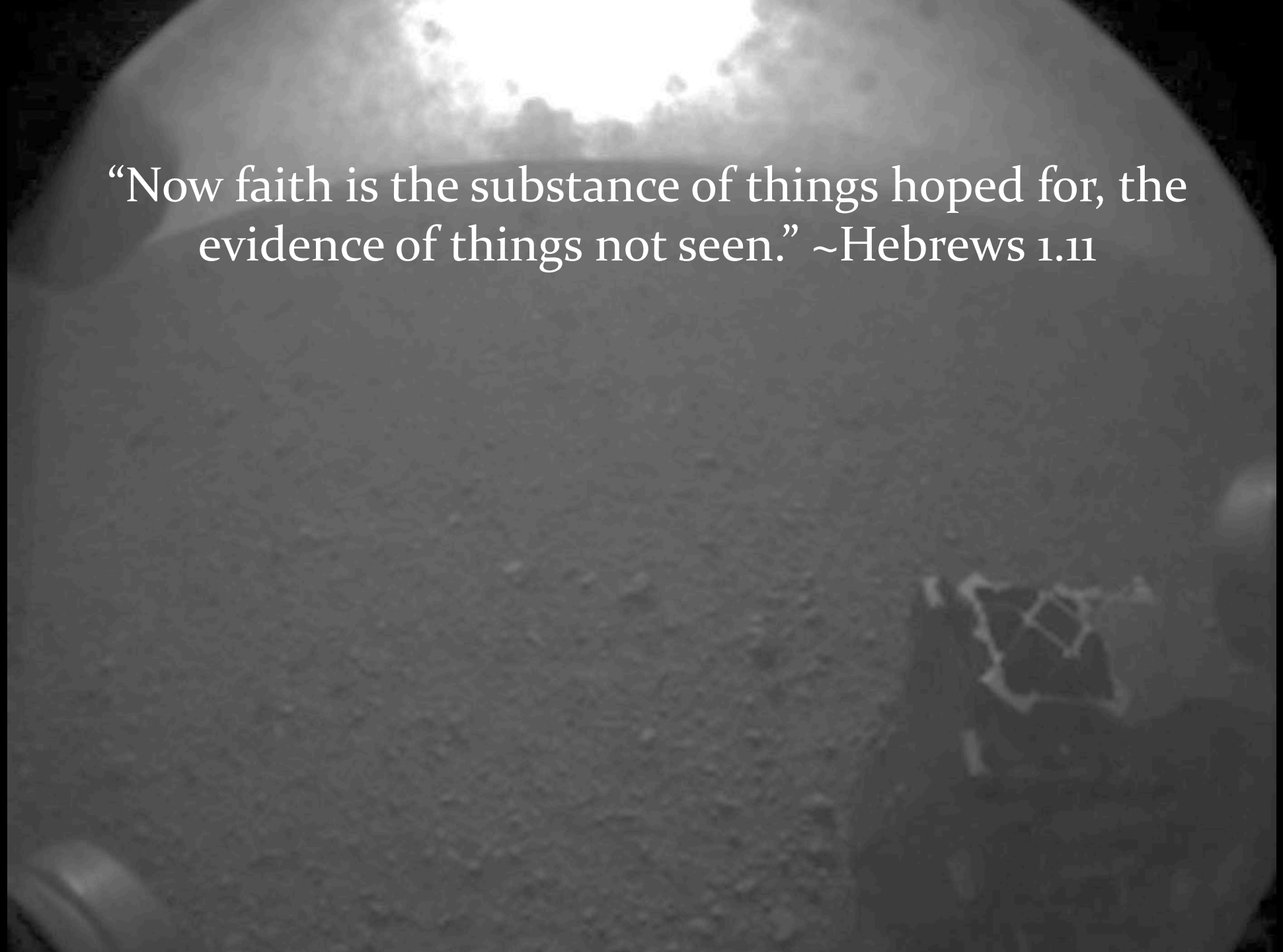
Disneyland, "Man and the Moon" (1955)


“Man is driven toward faith by his awareness of the infinite to which he belongs…An act of faith is an act of a finite being who is grasped by and turned to the infinite.”
~Paul Tillich (1957)


Could we then say that our continued exploration of space is an example of finite beings “grasped by and tuned to the infinite”?
And is that grasping – that *faith* – itself a resource?

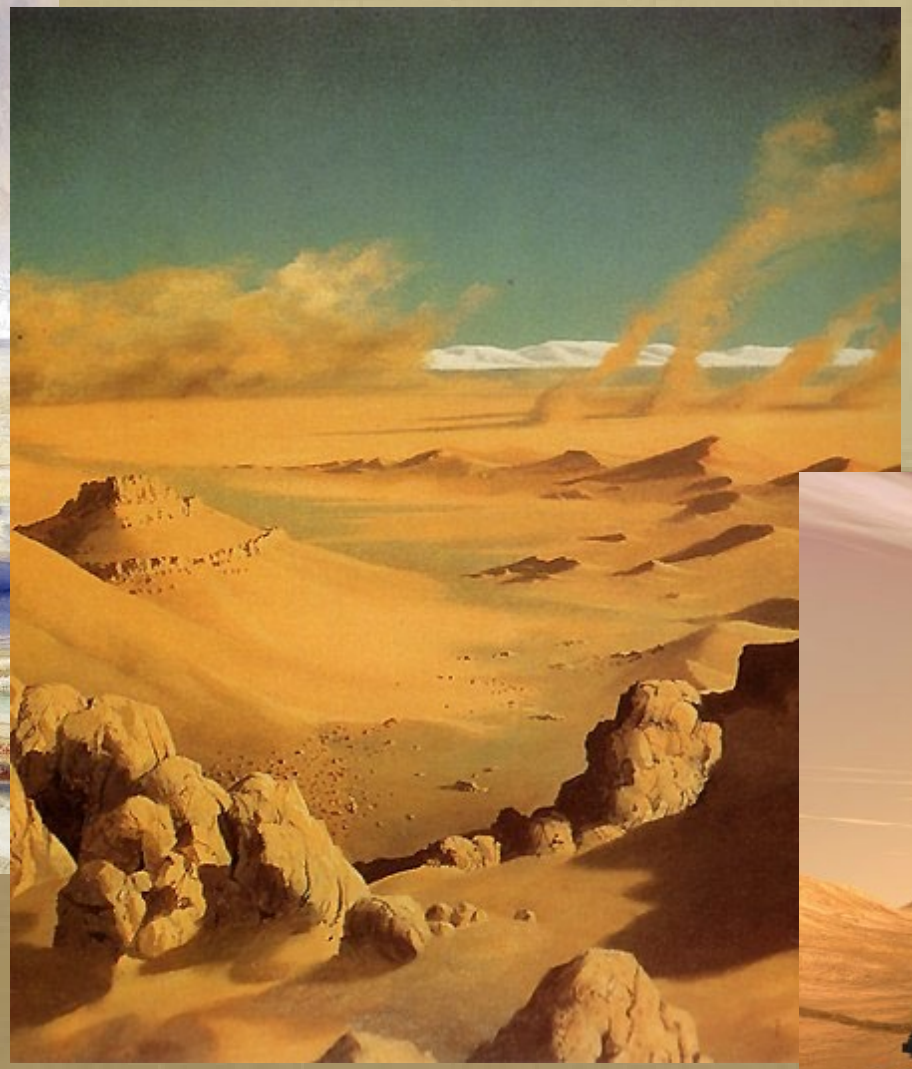


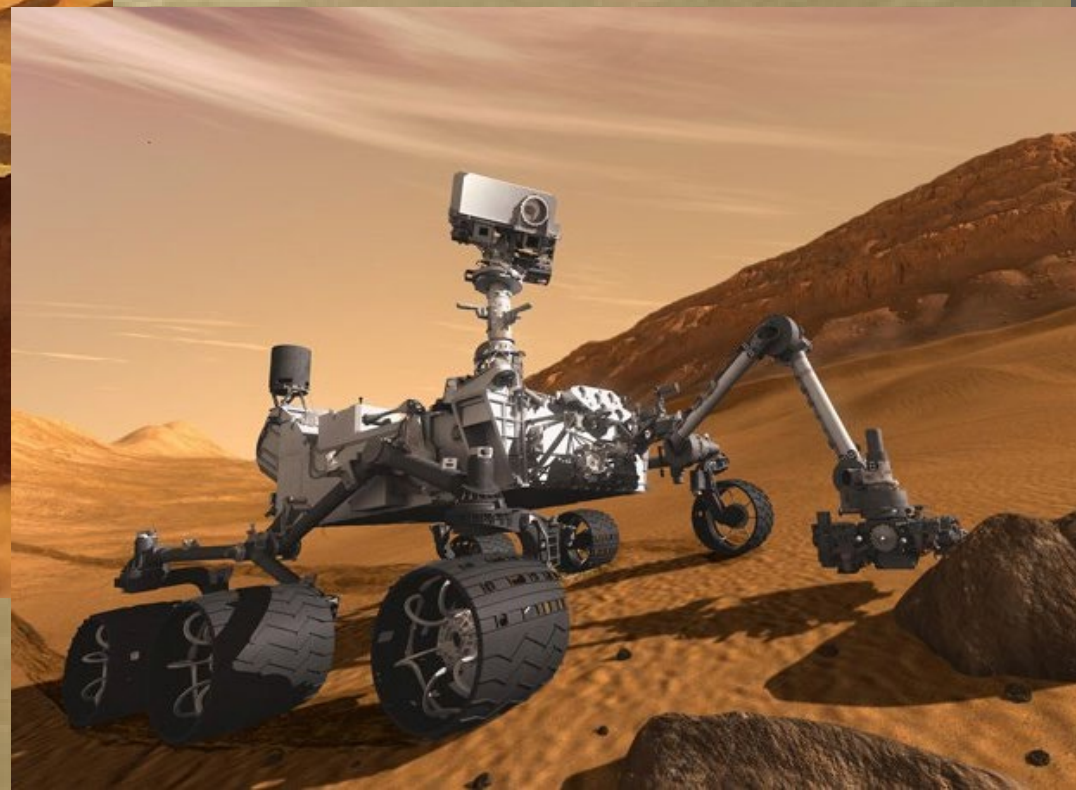



“Now faith is the substance of things hoped for, the evidence of things not seen.” ~Hebrews 1.11


AFP

"Collective Effervescence"





"This may perhaps contribute an understanding of the way in which ideas become effective forces in history."
~Max Weber

Thank You!