

PROLOGUE:

[PRE]IGNITION

WHERE?

92,960,000 MILES AWAY.*

WHEN?

EIGHT MINUTES AGO!

WHAT?!?!

* OR 149,600,000 KILOMETERS.

Energy,

THAT'S WHAT --
THE ABILITY OF A SYSTEM
TO DO WORK!

"WORK" IN THIS INSTANCE
IS EXERTING FORCE ON
ANOTHER SYSTEM FROM
A DISTANCE --

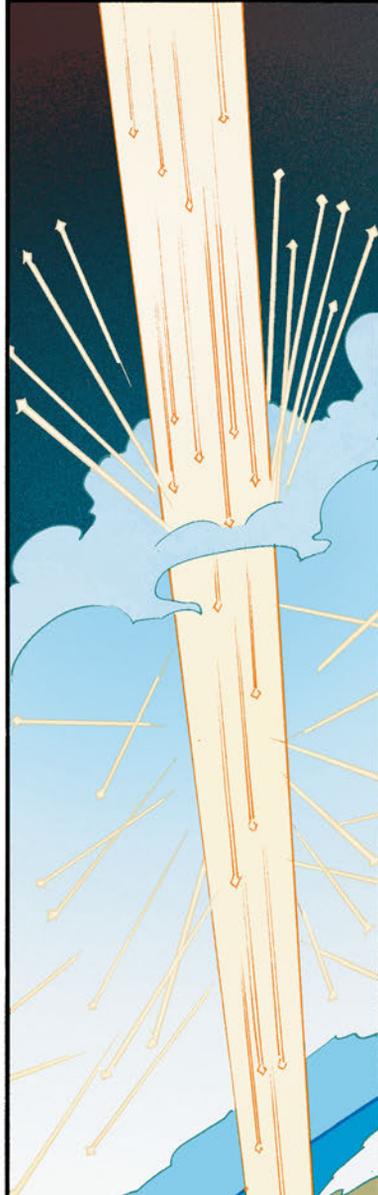
-- EVEN A HUGE
DISTANCE LIKE THAT
BETWEEN EARTH
AND OUR SUN!



THAT FORCE TRANSFERS
ENERGY FROM ONE
SYSTEM TO ANOTHER --
LIKE LIGHT FROM A SUN
TO A PLANET!

THAT LIGHT TAKES EIGHT
MINUTES AT THE SPEED
OF, UH, Y'KNOW, LIGHT,
TO REACH EARTH ... BUT
NOT ALL OF IT MAKES
IT TO THE PLANET'S
SURFACE.

A LOT OF IT
BOUNCES OFF
THE UPPER
PART OF THE
ATMOSPHERE--



-- AND MORE GETS
ABSORBED ON THE WAY
DOWN BY A MOTLEY CREW
OF WATER VAPOR, CARBON
DIOXIDE, METHANE,
NITROUS OXIDE, AND OZONE
-- WHAT WE LIKE TO CALL
"THE GREENHOUSE GANG!"

LIGHT ABSORBED BY
GREENHOUSE GASES
WARMS THE EARTH -- AND
THIS, AMONG MANY OTHER
FACTORS, IS WHAT MAKES
OUR PLANET IDEAL FOR
SUPPORTING LIFE!



PLANTS EVOLVED TO TRANSFORM SOME OF THE LIGHT THAT ESCAPES THE GREENHOUSE LAYER INTO SUGARS AND CARBOHYDRATES VIA PHOTOSYNTHESIS!

(THAT'S -- YES -- ANOTHER TRANSFER OF ENERGY BETWEEN SYSTEMS!)

ANIMALS EVOLVED TO CAPTURE THOSE STORED NUTRIENTS FOR THEMSELVES BY EATING SAID PLANTS!

(...AND ANOTHER TRANSFER...)

OTHER ANIMALS EVOLVED TO SNAG THOSE NUTRIENTS FOR THEMSELVES BY EATING THOSE ANIMALS!

ALL THIS ENERGY -- FROM THAT SINGLE BEAM OF SUNLIGHT!



BUT IT DOESN'T
END THERE!

THAT ENERGY INSIDE
PLANTS AND ANIMALS
DOESN'T JUST VANISH
WHEN THEY DIE.



TRAPPED MILLIONS OF
YEARS IN THE GROUND,
THOSE BIOLOGICAL
MATERIALS TRANSFORM
INTO A RICH VARIETY OF
HYDROCARBONS.

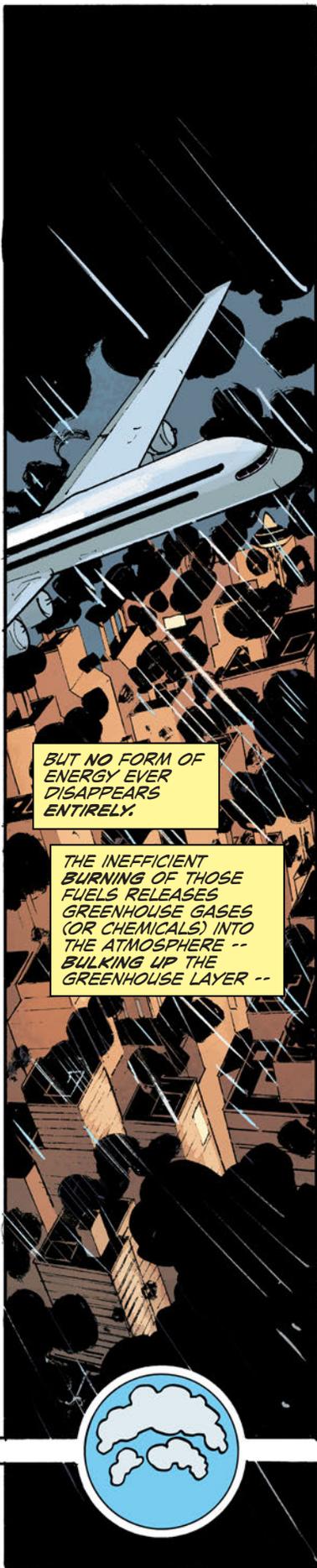


HUMANS LEARNED HOW
TO HARNESS THESE
"FOSSIL FUELS" IN THE
19TH AND 20TH
CENTURIES...



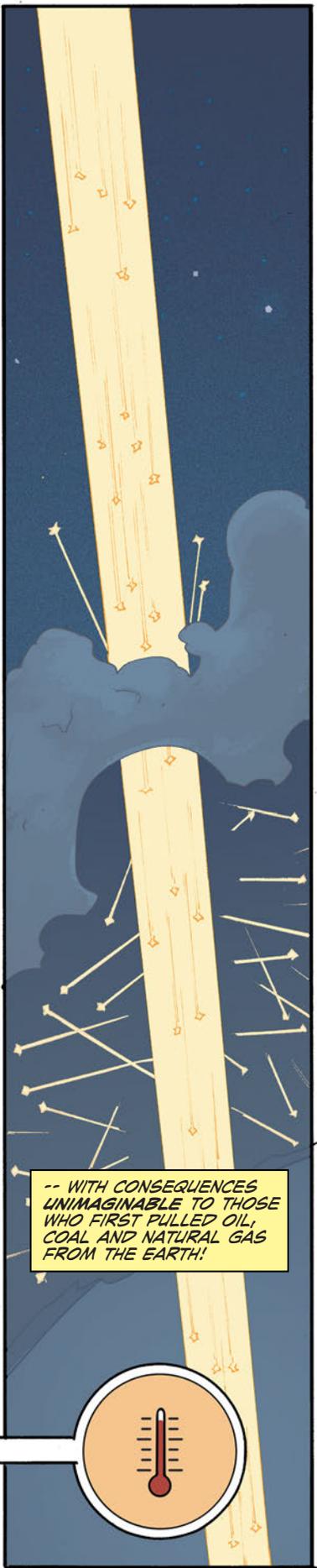


...AND IGNITED THE FIRE OF TECHNOLOGICAL ADVANCEMENT THAT BUILT THE MODERN WORLD AS WE KNOW IT TODAY!



BUT NO FORM OF ENERGY EVER DISAPPEARS ENTIRELY.

THE INEFFICIENT BURNING OF THOSE FUELS RELEASES GREENHOUSE GASES (OR CHEMICALS) INTO THE ATMOSPHERE -- BULKING UP THE GREENHOUSE LAYER --



-- WITH CONSEQUENCES UNIMAGINABLE TO THOSE WHO FIRST PULLED OIL, COAL AND NATURAL GAS FROM THE EARTH!