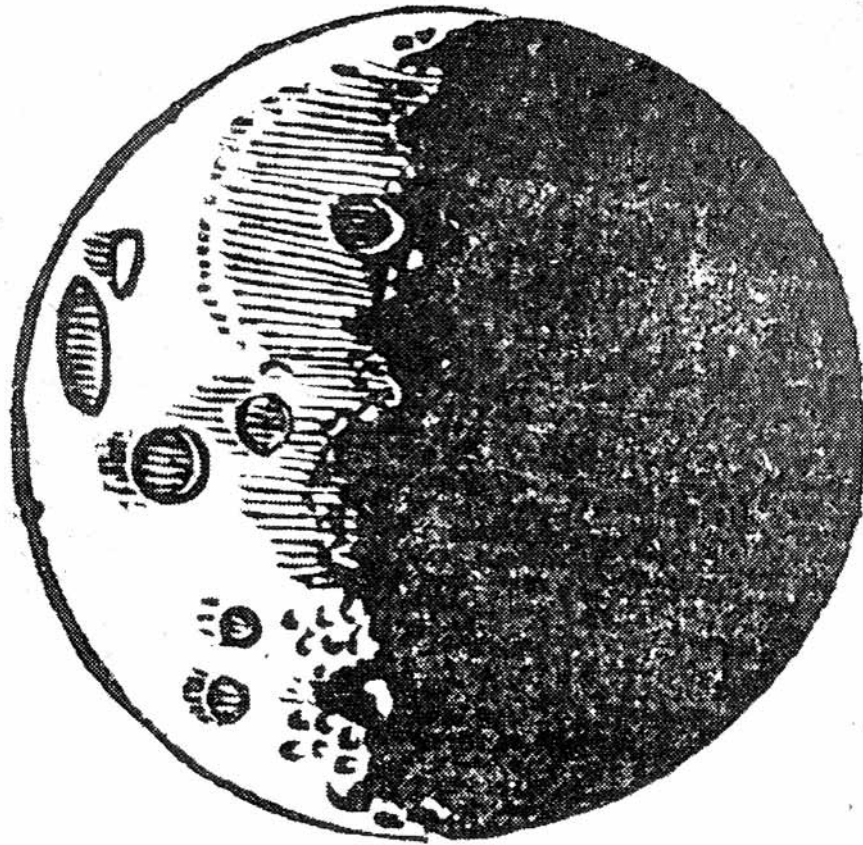
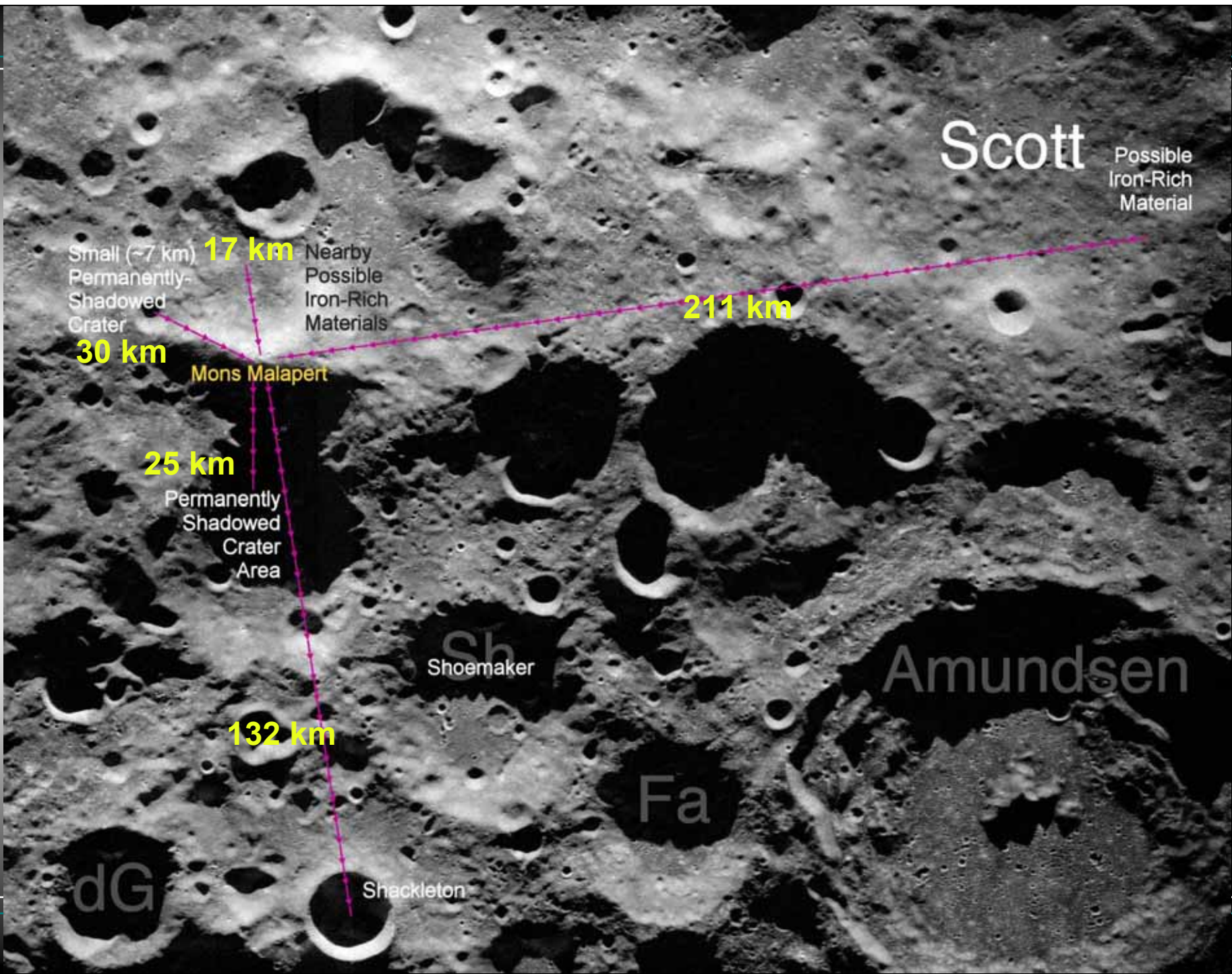


b

ORATIO.  
LVNÆ FACIES.



29 NOVEMBRIS 1619.



Scott

Possible Iron-Rich Material

Small (~7 km) Permanently-Shadowed Crater

17 km

Nearby Possible Iron-Rich Materials

211 km

30 km

Mons Malapert

25 km

Permanently Shadowed Crater Area

Shoemaker

Amundsen

132 km

Fa

Shackleton

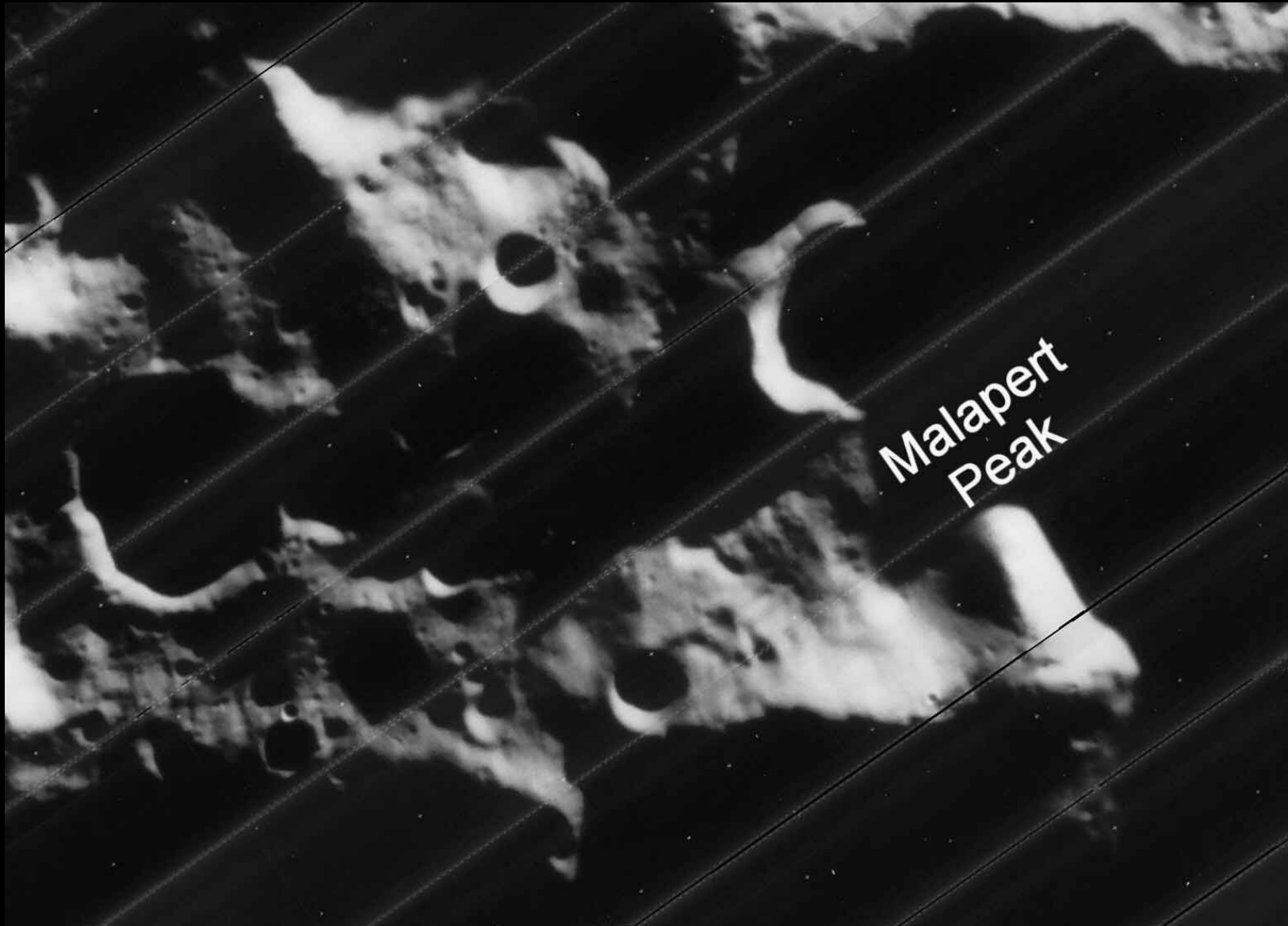
dG



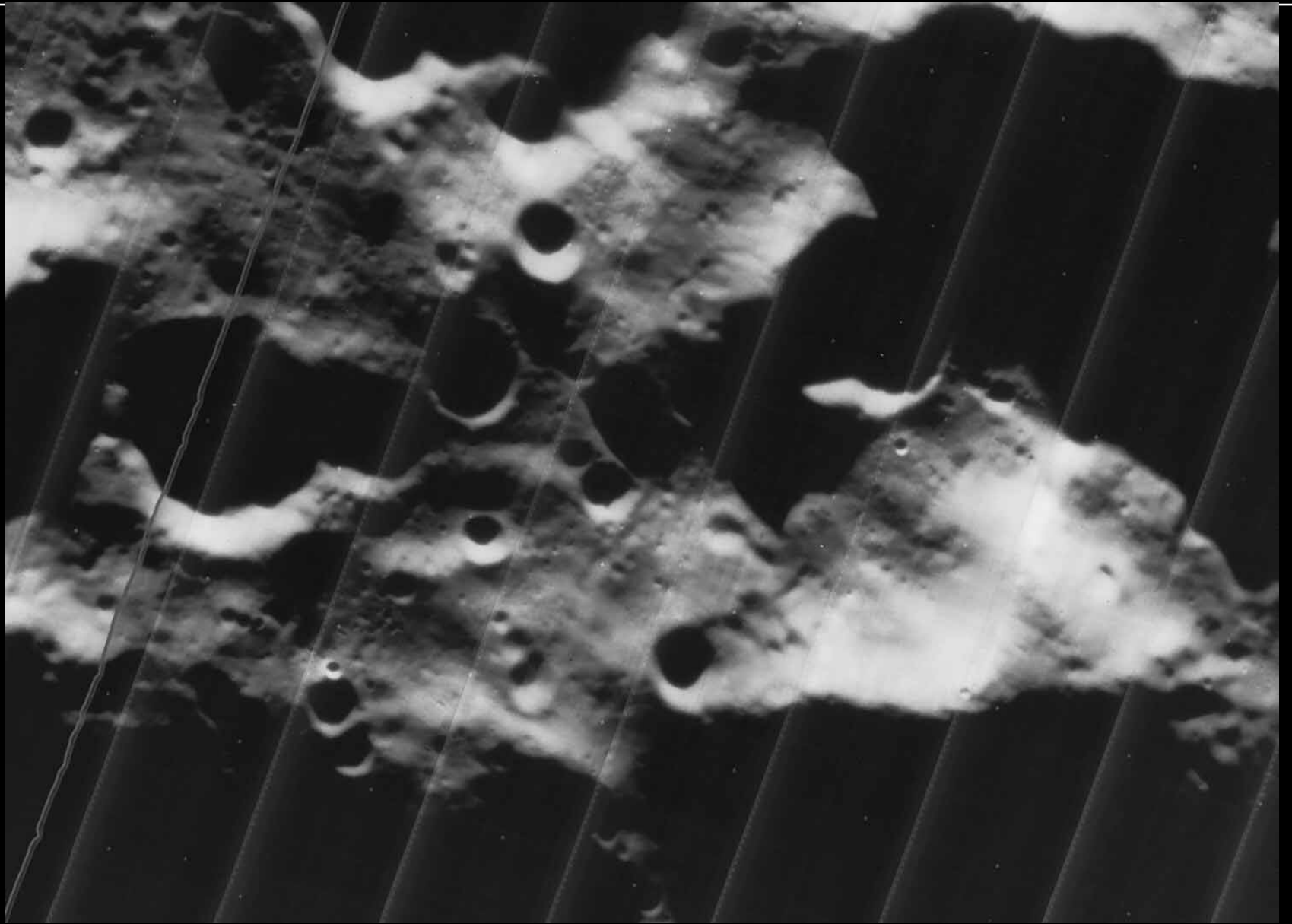
A black and white photograph of the lunar surface. The image shows a dark, cratered landscape. In the center-left, a prominent, sharp peak is visible, labeled "Malapert Peak". To the right, there is a large, dark, circular crater. The terrain is rugged and covered in smaller craters and rocks. The lighting is from the right, casting long shadows and highlighting the textures of the lunar surface.

Malapert  
Peak

1965/05/17

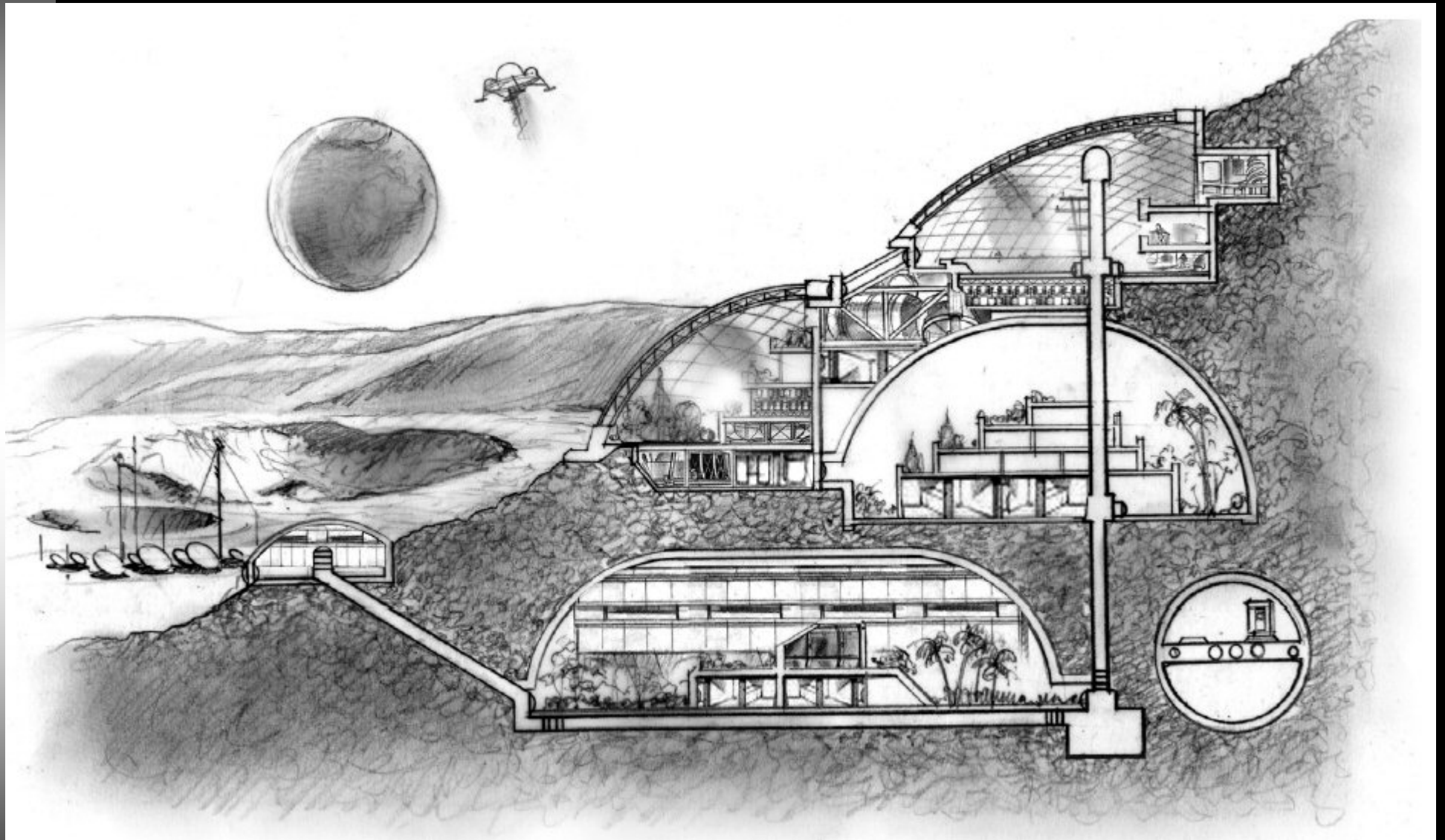


Malapert  
Peak





©JAXA/NHK





**THE SCIENCE OF LAWS:  
APPLICATION TO  
LUNAR GOVERNANCE**

*David G. Schrunk*

*Quality of Laws Institute*

# LUNAR GOVERNMENT

**ESSENTIAL FOR**

**STABILITY, FUNCTION**

# LUNAR GOVERNMENT

- **ASSIGN RIGHTS / OBLG'S**
- **PEACEFUL, RESP'N DV'L**
- **SETTLE DISPUTES**

# LUNAR GOVERNMENT

PURPOSE: ACHIEVE THE  
GOALS THAT SERVE BEST  
INTERESTS OF THE PEOPLE  
OF THE MOON

# LUNAR GOVERNMENT

- **EXECUTIVE**
- **LEGISLATIVE**
- **JUDICIAL**

# LEGISLATIVE BRANCH

- **CREATE BODY OF LAWS**
- **SATISFY PURPOSE OF GOVERNMENT**

# LAWS

- **MEANS / TOOLS OF GOVERNMENT**
- **SOLVE PROBLEMS (USEFUL)**

# **DESIRED LAW PROPERTIES**

- **Effective in solving problems**
- **Cost-efficient**
- **Non-intrusive,**
- **Minimal Side Effects**
- **User-friendly**



# QUESTION

**WHAT PROCESS SHOULD  
THE LEGISLATURE USE TO  
CREATE AND MANAGE ITS  
BODY OF LAWS ?**

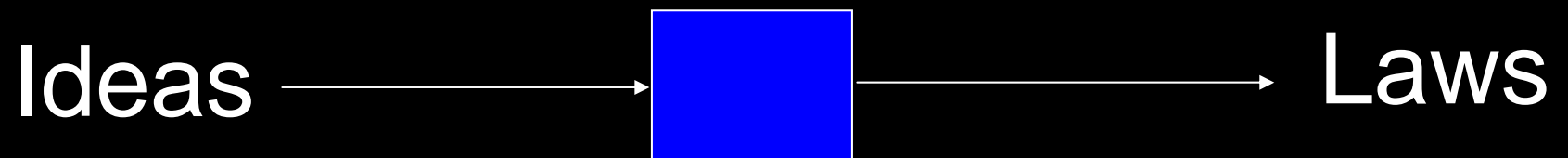
# LAWMAKING PROCESS EARTH GOVERNMENTS

- **IDEAS FOR LAWS**
- **DEBATE, AMENDMENTS**
- **COMPROMISE**
- **ENACT**

# EARTH MODEL

- 1) **No Problem Definition**
- 2) **No Req'ment Knowledge**
- 3) **No Design Expertise**
- 4) **No Ethics**
- 5) **No Quality Assurance**

# PRESENT LEGISLATIVE PROCESS



# EARTH MODEL

**NOT USEFUL**

**MAKES LAWS BUT DOES  
NOT SOLVE PROBLEMS**

# RESULT

- **Chaos / Too many laws**
- **Ineffective / Wasteful laws**
- **Pork barrel / Special interest**
- **Problems remain unsolved**

# RESULT = FAILULRE

- **Failure to satisfy the purpose of government**
- **Violation of the rule of law**
- **Public disdain for government**

**PROPOSED BASIS FOR**  
**LAWMAKING ON**  
**THE MOON:**

**THE SCIENCE OF LAWS**



# RATIONALE FOR THE SCIENCE OF LAWS

Science Successful :

**Communication, Life Support,  
Rocketry, Robotics, Medicine  
Information, Energy...**

# SCIENCE OF LAWS

- 1) **Engineering Discipline**  
**Design of Laws**
- 2) **Investigative Science**  
**Knowledge of Laws**

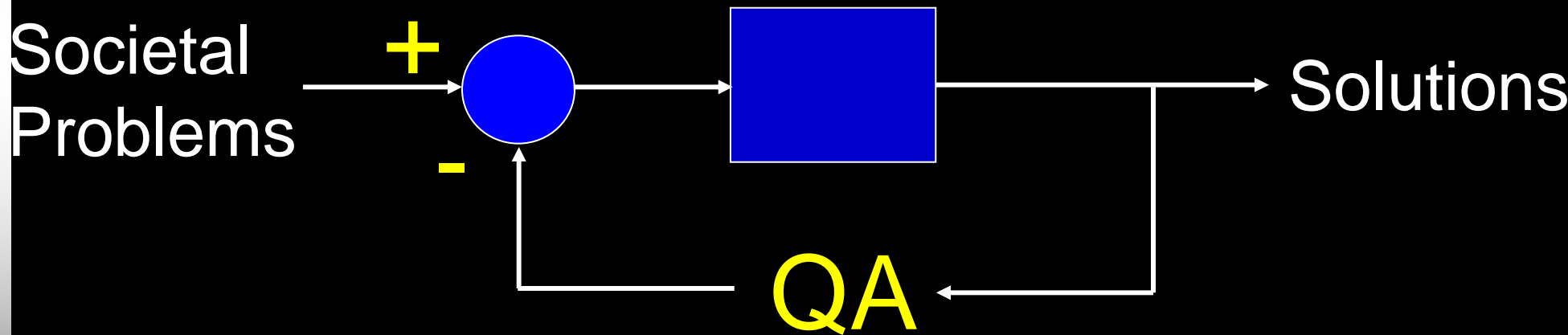
# ENGINEERING DISCIPLINE OF LAWS

- 1) Knowledge + Tools
- 2) Design Expertise (Ph.D.)
- 3) High Standards Quality
- 4) Effective Problem Solution

# INVESTIGATIVE SCIENCE OF LAWS

- 1) Knowledge + Tools
- 2) Outcomes Research (Ph.D.)
- 3) Performance Of Laws
- 4) Quality Assurance

# SCIENCE – DIRECTED LEGISLATIVE PROCESS



# **SCIENCE AND ENGINEERING OF LAWS**

- **Efficacious Problem Solution**
- **Satisfy Purpose of Government**

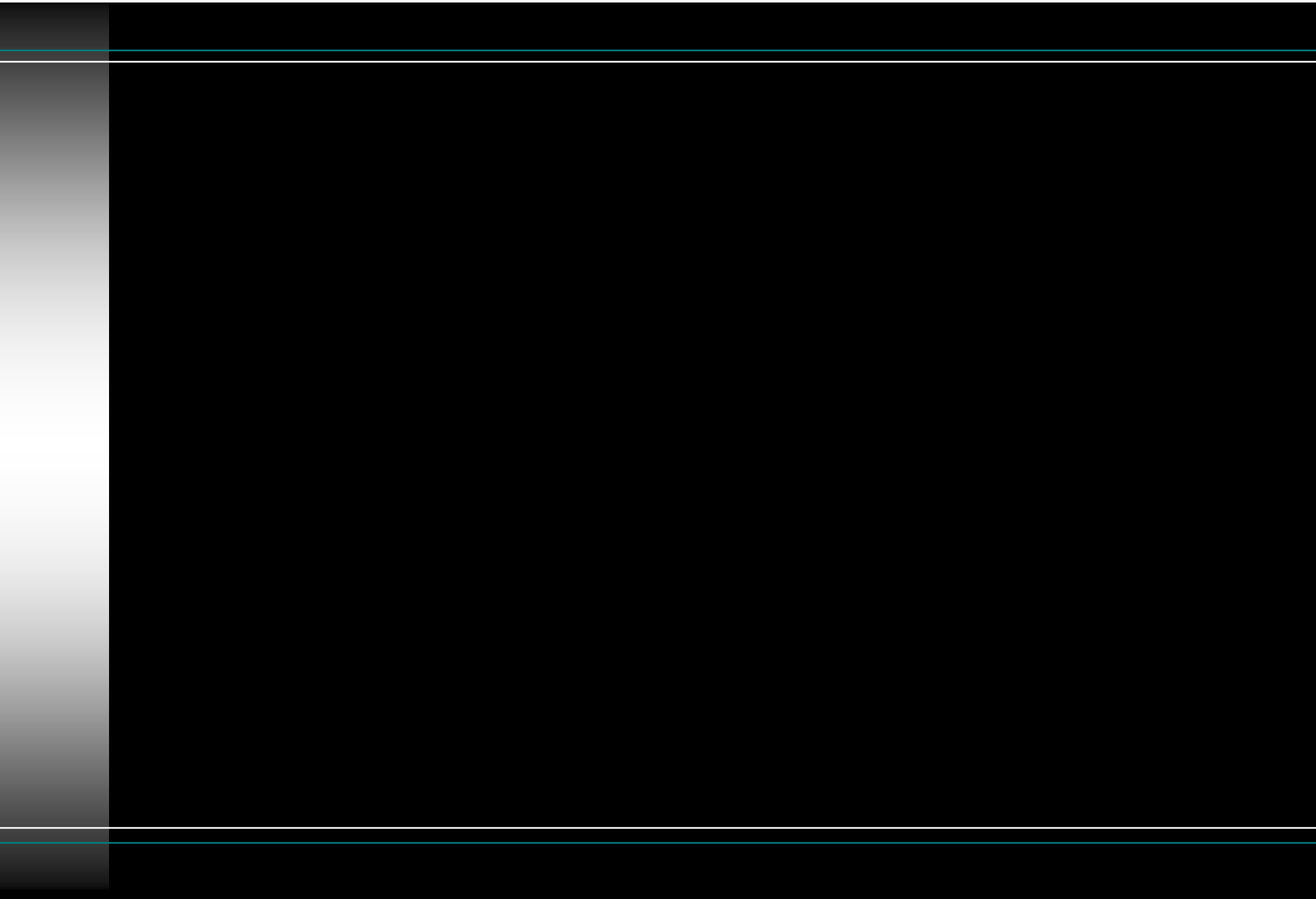
# SCIENCE OF LAWS

[WWW.SCIENCEOFLAWS.COM](http://WWW.SCIENCEOFLAWS.COM)

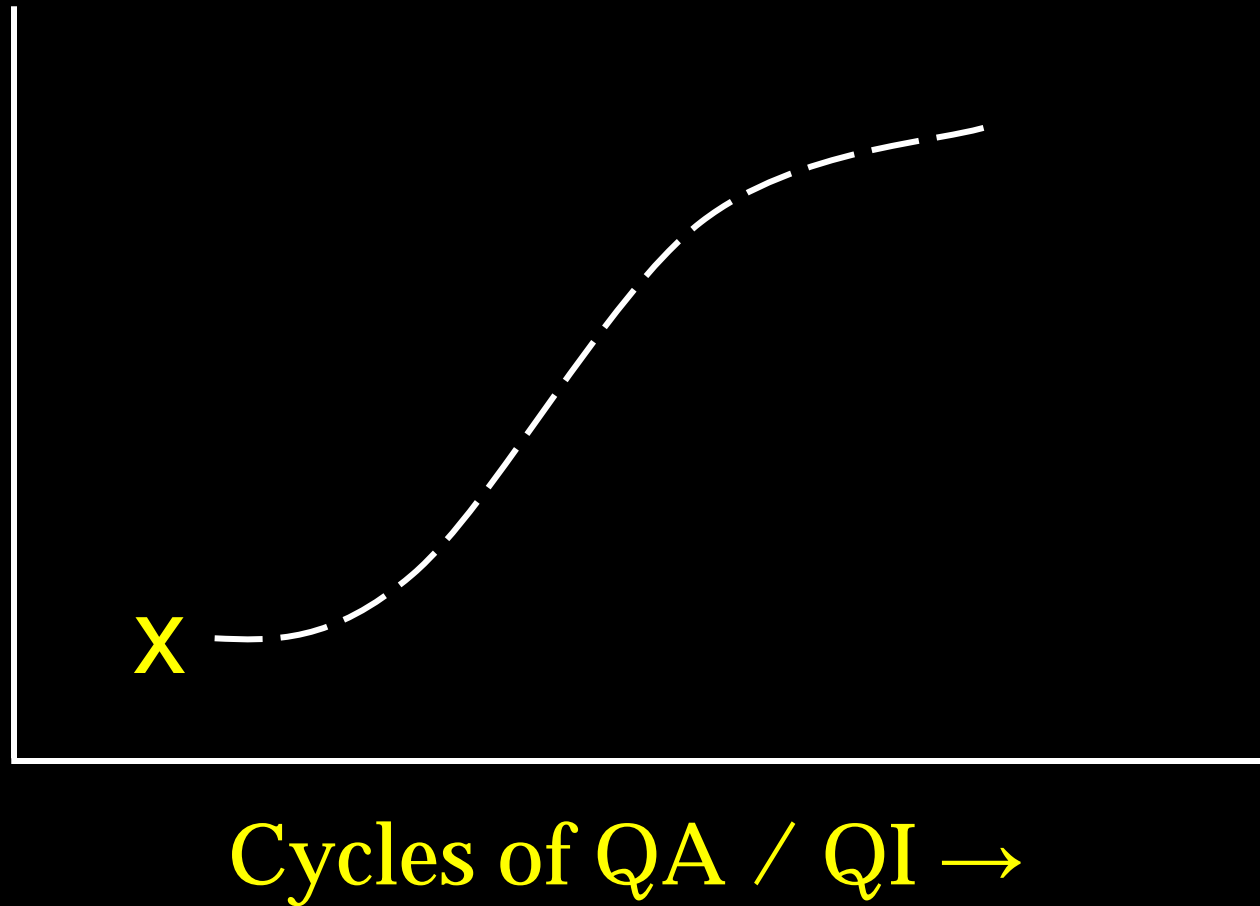
# RECOMMENDATION

**THAT THE FUTURE LUNAR  
GOVERNMENT ADOPT THE  
SCIENCE OF LAWS AS THE  
BASIS OF LAWMAKING**





# Performance of Tools



# Best Interests of the People

- **Human Rights**
- **Living Standards**
- **Quality of Life**

# HUMAN RIGHTS

- **Freedom of action**
- **Freedom from harm**
- **Inherently equal in everyone**
- **Cannot interfere with others'  
human rights**

# HUMAN RIGHTS

- **Substantive Rights**
- **Property Rights**
- **Political Rights**
- **Legal Rights**

# LIVING STANDARDS

- **Disposable income**
- **Purchasing power**
- **Cost of goods and services**
- **Net worth**
- **NOT GDP / CAPITA**

# QUALITY OF LIFE

- **Positive Indices**
  - **Consumer goods and services**
  - **Public use facilities**

# QUALITY OF LIFE

- **Negative Indices**
  - **War, crime, pollution**
  - **Preventable disease, disability, and death**



# SUBSTANTIVE RIGHTS

- **Right to life, liberty, security**
- **Freedom from torture, slavery**
- **Freedom of conscience, religion**
- **Freedom from interference home..**

# RULE OF ENGINEERING

**Every new generation of product is  
characterized by improvement over  
the preceding generation**

# **COSTS OF LAWS**

- **Research and Design**
- **Promulgation**
- **Drain from treasury**
- **Enforcement, Interpretation**
- **Compliance**
- **Opportunity costs**
- **QA - QI**

# LAWS = TOOLS

- **Solve Problems (Useful)**
- **Consume Resources**
- **Produce Side Effects**
- **Disturb Natural Order of Things**

# LAWS

**To satisfy purpose of government :**

- **Effective in solving problems**
- **Cost-efficient\***
- **Non-intrusive**
- **Minimal side effects**
- **User-friendly**

# PROBLEM SOLUTION

- **Problem analysis / priority / goal**
- **Ideation**
- **Create model**
- **Implement solution**
- **Problem solved? / optimize solution**

# LAWMAKING INDUSTRY

## LACKS OR IGNORES :

- Knowledge
- Elements of problem solution
- Design expertise\*
- Quality assurance\*

# QUALITY DESIGN STANDARDS

- **Definition of Problem**
- **Analysis / Priority of Problem**
- **Statement of Measurable Goal**
- **Costs, Risk, Side Effects Analyses**
- **Citation of References**



# QUALITY ASSURANCE

## Repeal Laws :

- **Ineffective, Outmoded**
- **Harmful, Purposeless**
- **Violate Human Rights**
- **Costs > Benefit**
- **Interfere With Other Laws**