

# **Professionalism: Use It or Lose It!\***

**Stephen A. Sonnenberg<sup>1</sup>**

Search and Discovery Article #70262 (2017)\*\*

Posted May 1, 2017

\*Adapted from oral presentation given at AAPG 2017 Annual Convention and Exhibition, Houston, Texas, April 2-5, 2017

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## **Abstract**

Almost all geologists think of themselves as scientists. Unfortunately, far fewer seem to think of themselves also as professionals. This thinking constitutes an unrecognized career handicap. Geology is both a science and a profession. A science pertains to accumulated systematized knowledge. A profession pertains to a special occupation, often for monetary gain. Petroleum geology is an occupation that requires specialized knowledge and academic preparation. Ethics is a discipline of basically dealing with what is right and wrong. Ethical people are thought of as having good behavior and doing things the proper way, every time. Ethical behavior is associated with high moral principles, desire of individuals for a good reputation, enhancement of productivity, fear of sanction, demands of society, and requirements of professional affiliations. AAPG code of ethics has general principles that each member agrees to follow. Professional obligations include honesty, integrity, loyalty, fairness, impartiality, candor, fidelity to trust, and inviolability of confidence. Some of the professional purposes of AAPG is to inspire in the membership a high standard of business ethics, personal honor, and professional conduct.

## **Selected References**

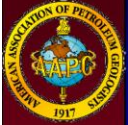
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*Professionalism  
Use it or Lose it!*

*By  
Stephen A. Sonnenberg  
Colorado School of Mines*



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# Geologists Are:

- ◆ Scientists
- ◆ Professionals

Presenter's notes: Geologists are both scientists and professionals. The late Charlie Dodge of Dallas, Texas used to describe geology as the "oldest" profession.



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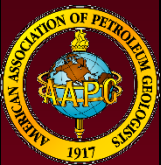
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# Science

- ◆ Pertains to accumulated systematized knowledge



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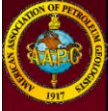
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# Geology

- ◆ From Greek: ge-, "the earth" and logos, "science"
- ◆ Study of the earth, its history, and the processes that shape it
  - first used in this sense by Jean-Andre de Luc in 1778



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## Professions - Definition

*(modified from Webster's)*

- ◆ A vocation or occupation requiring advanced education, and training in some liberal art or science, and usually involving mental rather than manual work, such as teaching, engineering, geology, medicine, law, or theology, etc., often for a monetary gain

Presenter's notes: Professions are vocations or occupations requiring advanced education and training in some liberal art or science, and usually involving mental rather than manual work, such as teaching, engineering, geology, medicine, law, or theology, and often for a monetary gain. The earliest meaning of profess comes from those professing the vows of a religious order. Clergy professed a duty to god. Professionalism meant the act of professing. Late in the 17<sup>th</sup> century, profession took on a secular meaning, and was extended to medicine and law. In the 19<sup>th</sup> century it was extended to surveying and engineering. Today it is often used as a principal calling or vocation, or employment. Competitive athletes paid for their performances are referred to as professional, a far cry from its original meaning.



# Professions - Early Definitions

- ◆ Professionalism - earliest meaning comes from those professing the vows of a religious order
- ◆ Meant the act of professing
- ◆ Clergy "professed" a duty to god

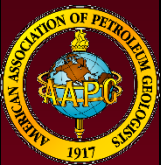
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# Professions - Later Definitions

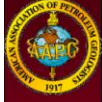
- ◆ Late 17th century, "profession" took on secular meaning, extended to medicine and law
- ◆ Mid 19th century, extended to surveying and engineering

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# Characteristics of a Profession

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- ◆ To serve society
- ◆ Unique body of knowledge

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- ◆ Vocabulary and professional journals
- ◆ Historical record

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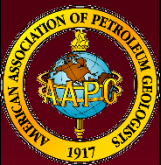
- ◆ Professional Societies
  - Guidelines for behaviors
  - Admission requirements

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- ◆ Governmental recognition (definition clauses or licensure requirements)

Presenter's notes: Professions exist to serve society. Some characteristics of a profession are as follows:

- ◆ Develop and maintain a specialized body of knowledge
- ◆ Establish a unique subculture (distinguished from the society they serve)
- ◆ Develop and establish journals
- ◆ Historical record of notable members
- ◆ Existence of Professional Societies, which hold members to high technical and ethical standards (codes of ethics or conduct)
- ◆ Governmental recognition (definition clauses in statutes or licensure requirements)



# History

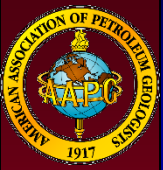
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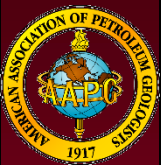
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# History



James Hutton(1726-1797) is considered to be the founder of modern Geology. His studies of the rock formations of his native Scotland helped him to formulate his most famous work, "Theory of the Earth".

"The present is the key to the past."



# History

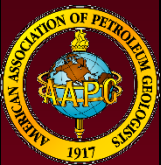
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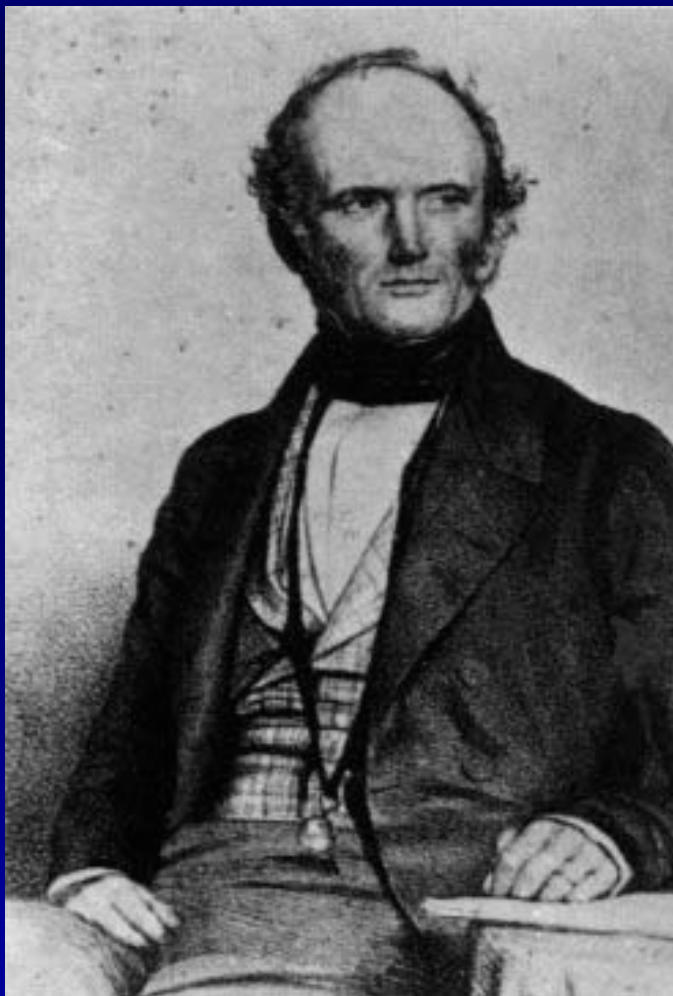
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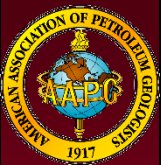
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# History



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"Uniformitarianism"



# History

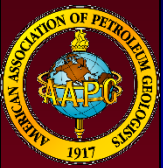
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- ◆ **William Smith** (1769-1839) - created the first geologic map (1815); ordering of rock strata by fossils

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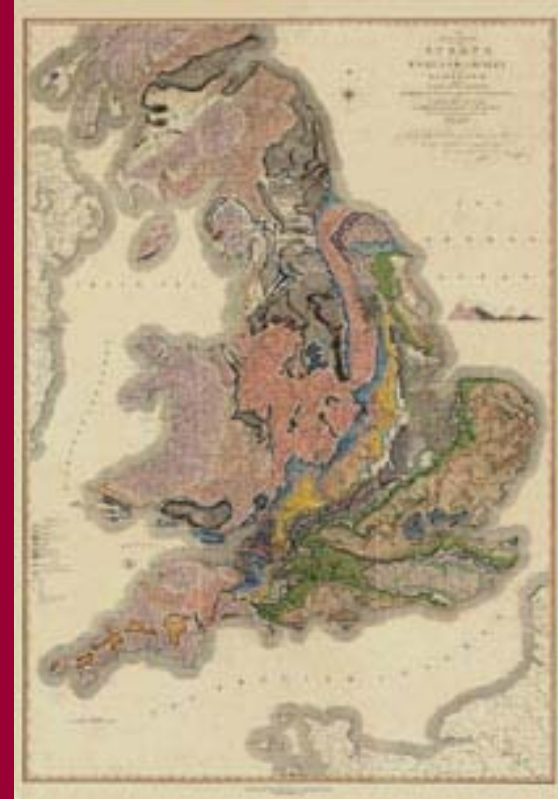
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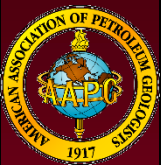
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# History



William Smith First Geologic Map 1815





# History

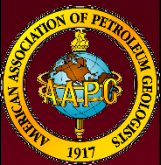
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- ◆ William Smith (1769-1839) - created the first geologic map (1815); ordering of rock strata by fossils
- ◆ **The Geological Society** (of London) was founded in 1807. Oldest geological society in the world with the aim of "investigating the mineral structure of the Earth"

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# History

The first meeting resolved:

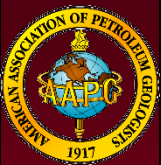
'That there be forthwith instituted a Geological Society for the purpose of making geologists acquainted with each other, of stimulating their zeal, of inducing them to adopt one nomenclature, of facilitating the communications of new facts, and of ascertaining what is known in their science and what remains to be discovered.'

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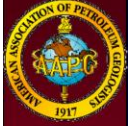
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- ◆ **British Geological Survey** established 1835



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# The Profession of Geology

- ◆ “Professionals profess to know better than others the nature of their specialty”
- ◆ Geology is a profession, and the privilege of professional practice requires professional morality and professional responsibility (AAPG Constitution)

Presenter’s notes: Professionals profess the nature of their specialty. The AAPG constitution contains the statement “Geology is a profession, and the privilege of practice requires professional morality and professional responsibility.”



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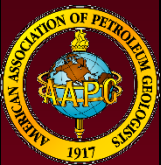
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*"Geoscience is the oldest  
profession"*

C. Dodge, 1998



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AAPG is:

- ◆ A Professional Society
- ◆ A Scientific Society



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# Scientific Purposes of AAPG

- ◆ **Advance the science of geology**, especially as it relates to petroleum, natural gas, other subsurface fluids, and mineral resources;
- ◆ To **promote the technology** of exploring for, finding, and producing these materials in an economically and environmentally sound manner;
- ◆ To **foster the spirit of scientific research** throughout its membership
- ◆ To **disseminate information** relating to the geology and the associated technology of petroleum, natural gas, other subsurface fluids, and mineral resources

Presenter's notes: The scientific purposes of AAPG are to advance the science of petroleum geology, to promote technology to explore for, find, and produce these products, to foster the spirit of scientific research, and to disseminate information relating to petroleum geology.



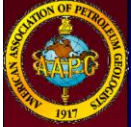
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## Professional Purposes of AAPG

- ◆ ...To provide the public with means to recognize adequately trained and professionally responsible
- ◆ ...To inspire and maintain a high standard of professional conduct on the part of its members
- ◆ ...To advance the professional well-being of its members

Presenter's notes: "The Professional purposes of AAPG are to provide the public with a means to recognize adequately trained and professionally responsible persons, to inspire and maintain a high standard of professional conduct and to advance the professional well being of its members. Having a code of ethics and educational and experience requirements for membership makes AAPG a Professional society. Removing these requirements would make us a scientific society. People are qualified for active membership in AAPG by being engaged in practice or teaching of geology, having a degree in geological sciences, and to have work experience in the geological sciences.





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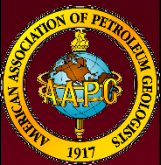
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# Professionalism

- ◆ The conduct, aims, or qualities that characterize or mark a profession or professional person

Presenter's notes: So what exactly is professionalism? Professionalism is defined as the conduct, aims, or qualities that characterize or mark a profession or professional person.



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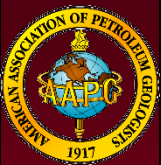
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# Professionals

- Intellectual work
- Exercise of discretion and judgment
- Requires knowledge in advanced field of science



# The Professional Obligations

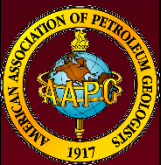
- Integrity
- Loyalty
- Fairness
- Impartiality
- Candor
- Trustworthiness
- Sincerity
- Respect
- Openness
- Diligence
- Proper Behavior
- Honesty
- Confidence

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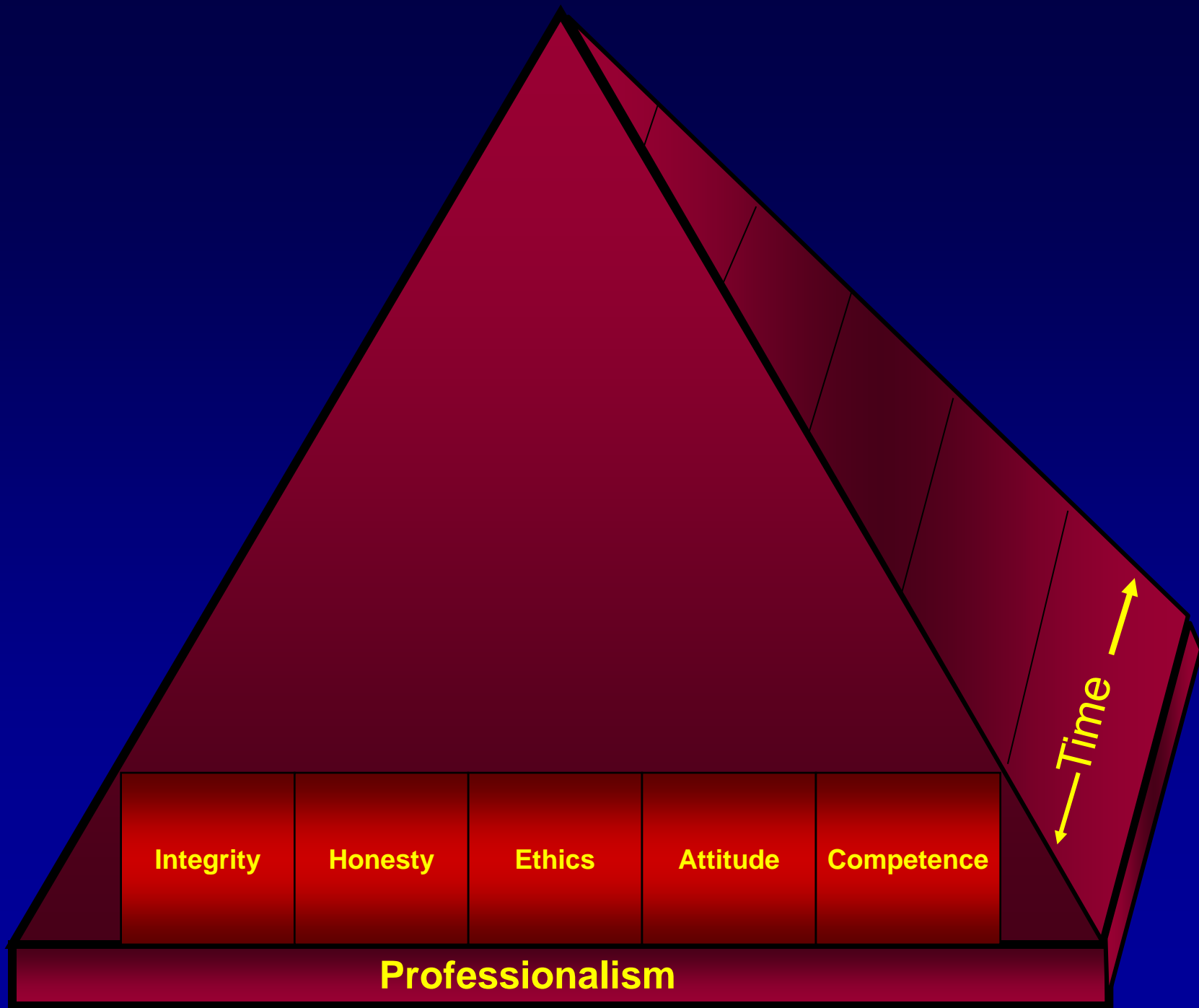
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## Integrity

Firm adherence to a code of values

“Taking what you believe to be true  
and letting it be reflected in your  
actions” *Bob Megill*

## Honesty

Fairness and straightforwardness of conduct. Adherence to the facts. Refusal to lie, steal, or deceive.

“A lie stands on one leg, the truth on two” *Benjamin Franklin*

## Ethics

Known as moral philosophy,  
discipline of right and wrong, good  
and bad.

“There is no pillow so soft as a clear  
conscience” *French proverb*

## Attitude

Commitment to hard work, to achieve and maintain confidence.

*“You play the hand you're dealt. I think the game's worthwhile.”*

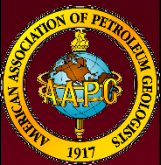
Christopher Reeve



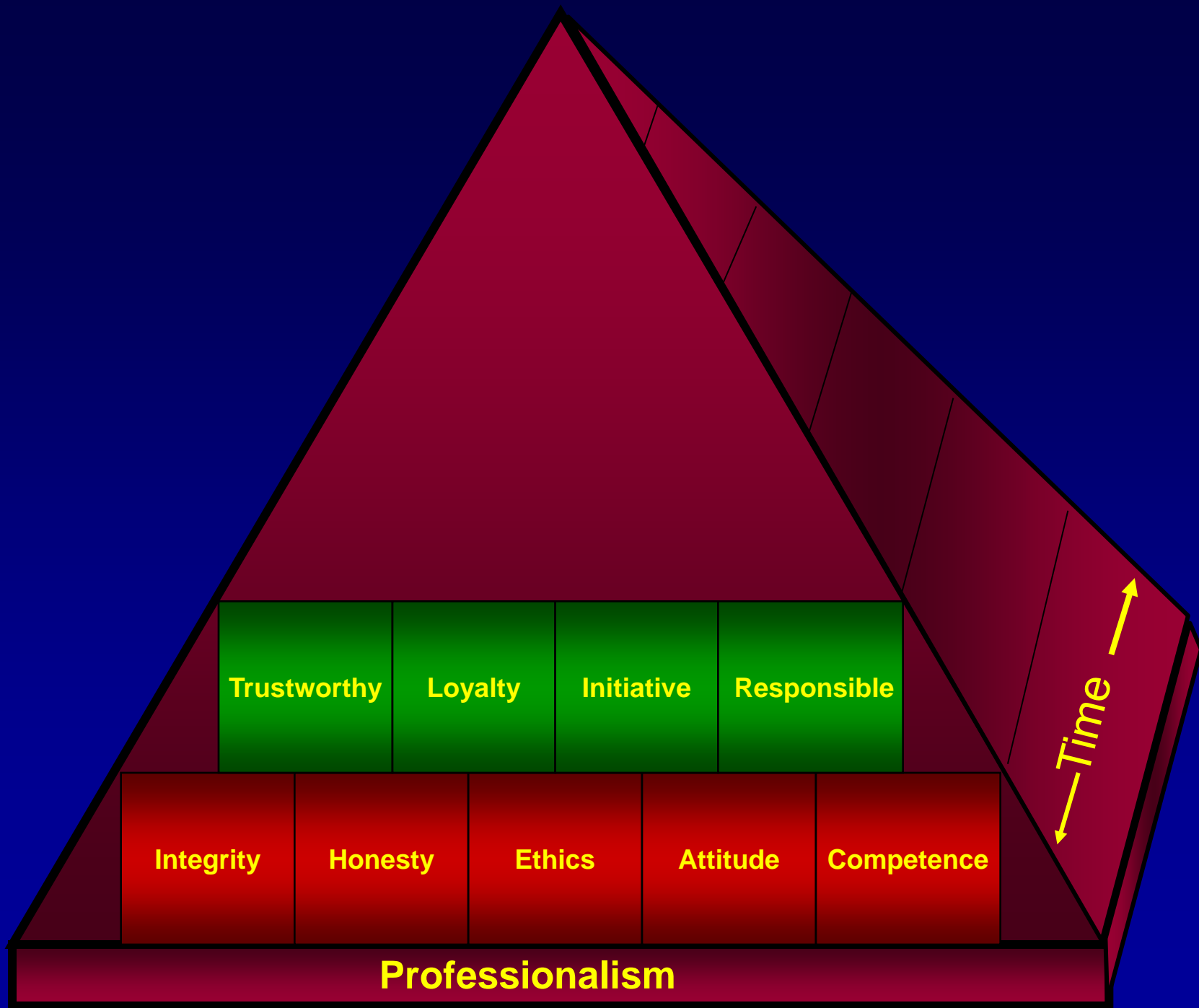
# Competence

Product of education, training, and experience.

“No letters after your name are ever going to be a total guarantee of competence any more than they are a guarantee against fraud. Improving competence involves continuing professional development ... That is the really crucial thing, not just passing an examination.” *Colette Bowe*



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## Trustworthy

Worthy of confidence, dependable,  
avoid conflicts of interest.

“As soon as you trust yourself, you  
will know how to live.”

*Goethe*

## Loyalty

Faithful to a course, knowing who and what you have allegiance to.

“Loyalty means nothing unless it has at its heart the absolute principle of self-sacrifice” *Woodrow T. Wilson*

## Initiative

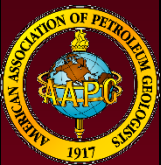
Energy or aptitude displayed in the initiation of an action. Take charge.

“Even if you’re on the right track  
you’ll get run over if you just sit there”  
*Will Rogers*

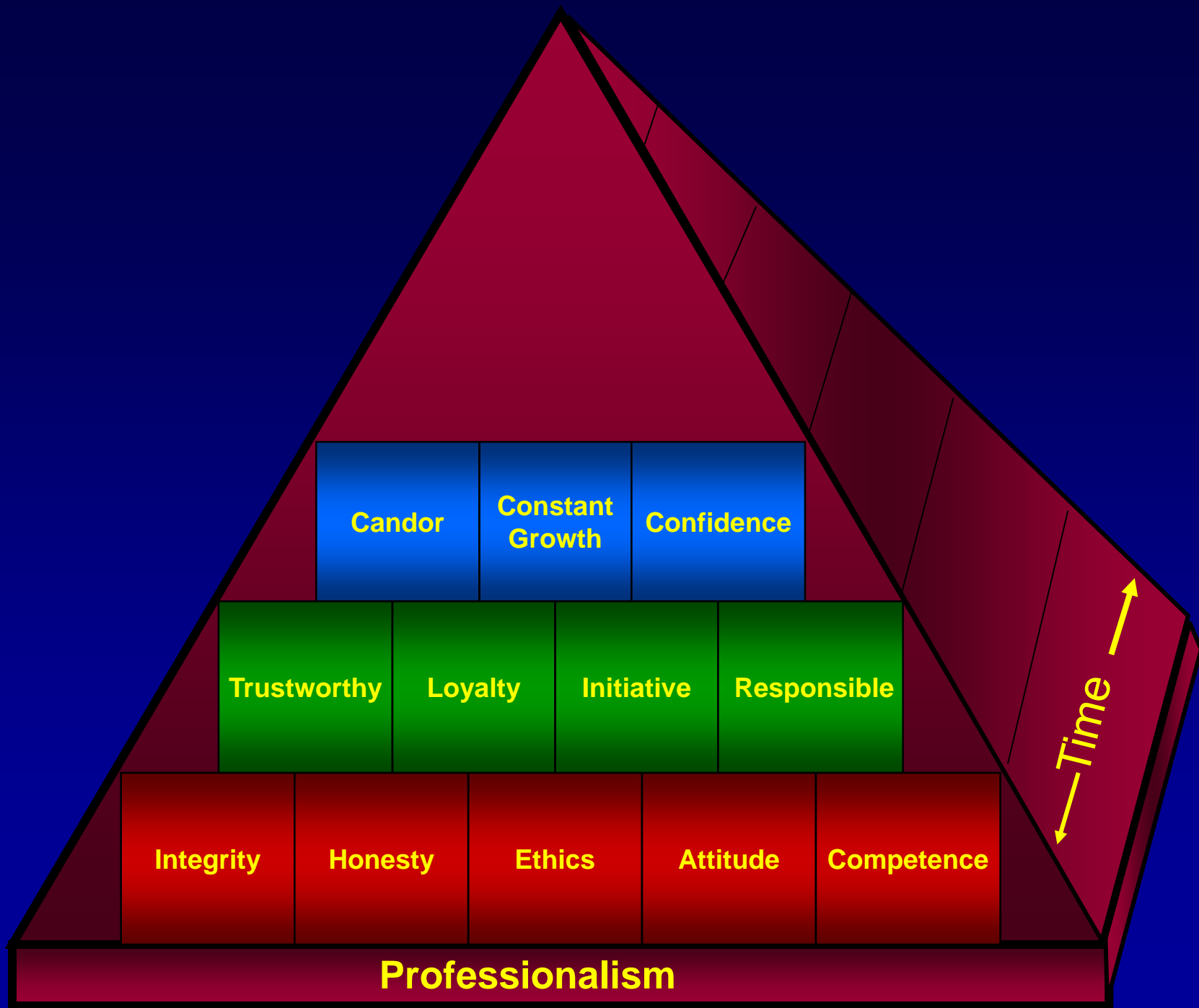
## Responsible

Able to answer for your own conduct or actions.

“To shun one’s cross is to make it heavier”  
*Henri Frederic Amiel*



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## Candor

Fairness or freedom from prejudice,  
marked by impartiality.

“There is no wisdom like frankness.”

*Benjamin Disraeli*



## Constant Growth

Constantly learning, maintaining and improving skills.

“Unless you change how you are,  
you will always have what you’ve got”

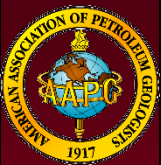
*Jim Rohn*

## Confidence

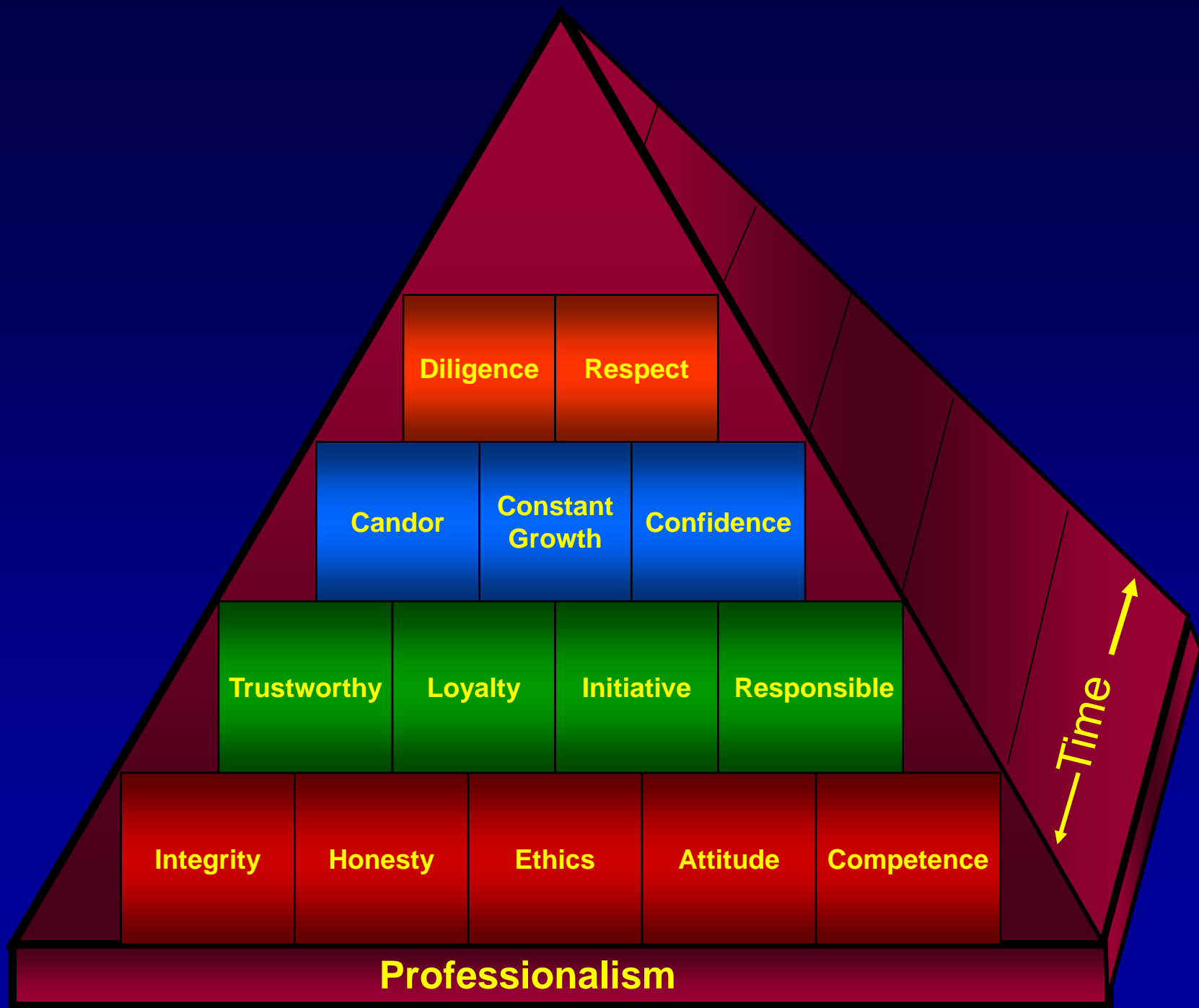
Belief in yourself. Quality of being certain.

“As is our confidence so is our capacity”

*William Haylitt*



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## Diligence

Commitment to hard work! Steady, energetic effort.

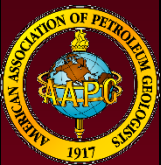
“Opportunity is missed by most people because it is dressed in overalls and looks like work”

*Thomas Edison*

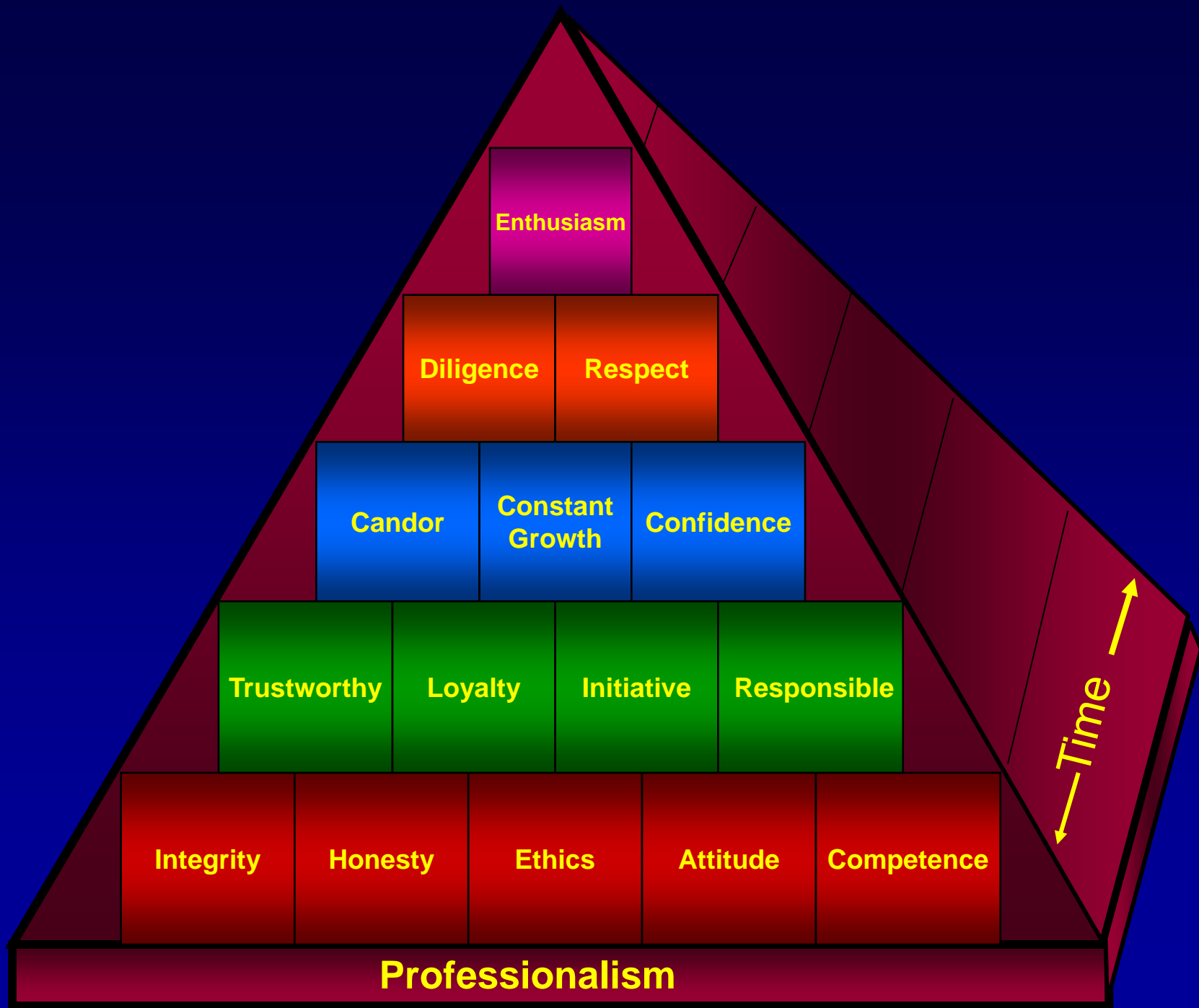
# Respect

An attitude of deference, admiration, regard. Being polite, considerate, and kind.

“This above all: to thine own self be true, And it must follow, as the night the day, Thou canst not then be false to any man.” *William Shakespeare*



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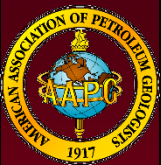


## Enthusiasm

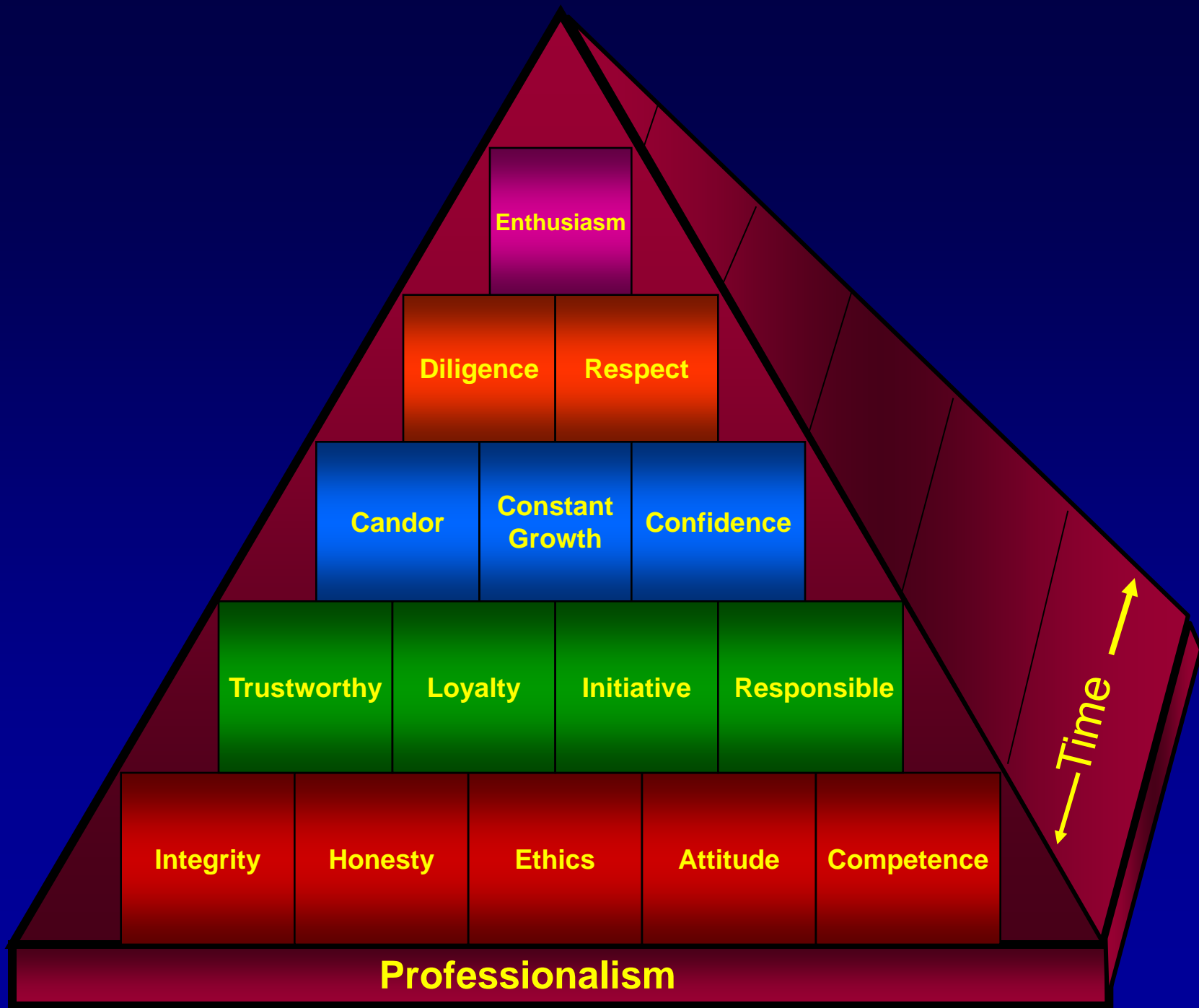
Strong feeling of excitement,  
something inspiring zeal or fervor

“Every great and commanding  
movement in the annals of the world  
is a triumph of enthusiasm”

*Ralph Waldo Emerson*

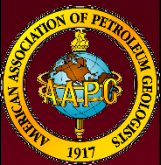


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*Professionalism  
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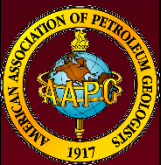
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# Ethics

- ◆ Discipline of dealing with what is right and wrong
- ◆ "good behavior"
- ◆ Do things the proper way, every time

"When I do good, I feel good.  
When I do bad, I feel bad.  
That is my religion."

*Abraham Lincoln*



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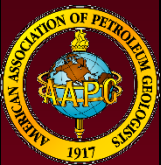
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# Ethics

- High moral principles
- Desire for good reputation
- Enhancement of productivity
- Fear of sanction
- Demands of society
- Requirements of professional affiliations

"Do what is right before you  
receive a court order"



# Ethics & Compliance

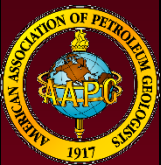
- Compliance - doing what you are legally required to do
- Ethics - doing what you are morally obligated to do

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# Aspects of Ethics

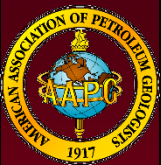
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- Ability to discern right from wrong, good from evil, propriety from impropriety
- Commitment to do what is right regardless of temptations or pressures



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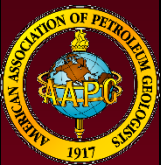
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# Ethical

- Virtuous
- Honorable
- Moral
- Decent
- Equitable
- Just





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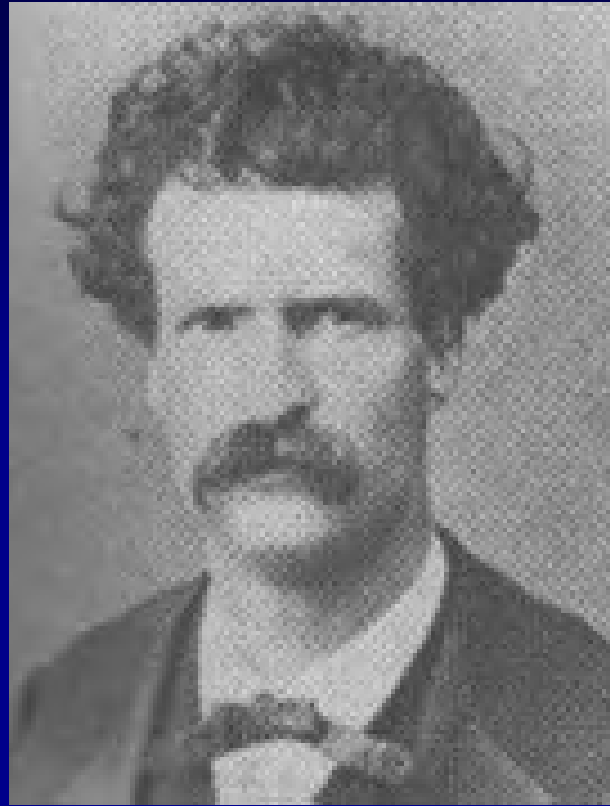
# The Ethics Test

- The Media Test
- The Raised Eyebrow Test
- The Sleep Test
- Child on Your Shoulder Test
- The Conscience Test

*(from the Montana Power Company)*

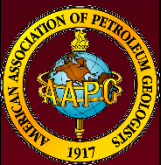
"Let us endeavor so to live  
that, when we die, even the  
undertaker will be sorry"

Mark Twain



"To be good is noble, but to teach others how to be good is nobler- and less trouble."

*Mark Twain*



# The Threats to Professionalism

- ❖ Attitude
- ❖ Professional Ethics
- ❖ Education
- ❖ Training
- ❖ Mentors
- ❖ Recognition of Professional
- ❖ Success Measured by Society

*(modified from Weimer, 1984; Sonnenberg, 1993)*



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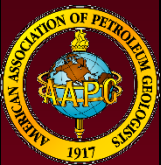
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# Attitude

- Commitment to do work hard
- Commitment to achieve and maintain competence
- Pride in Work
- Ethical guidelines
- Day-to-day application of standards  
(Weimer, 1984)



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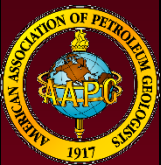
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# Desirable Traits

- Self-discipline
- Individual competence
- Acute analytical observation and reasoning
- Systematic interpretation
- Memory training
- Enthusiasm and patience
- Initiative and persistence
- Measured aggressiveness *(Miller, 1969)*



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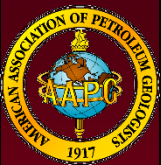
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# Undesirable Traits

- Prosperity at any price
- Love of the soft living
- Get rich quick theory of life



# Educational Background

- Must be sufficient to enter chosen Profession
- Professionals must be responsible for continuing education

*(Weimer, 1984)*

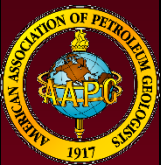
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# Professional Maintenance

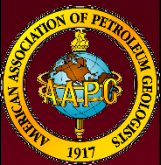
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- Are you keeping up?
- Half-life of knowledge is ~ 8 years
- Continuing education!



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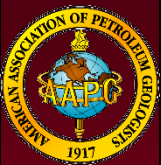
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# Continuing Education

- On the job training
- Formal training
- Informal training
- Participation
- Professional presentations
- Technical articles



# Lack of Recognition

- ◆ Organization
- ◆ Professional Organizations
- ◆ Government Agencies
- ◆ Legislative Bodies

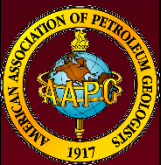
*(Weimer, 1984)*

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# Way Success is Measured

- Material wealth and monetary gain
- Short-term goals
- Societal pressures toward mediocrity, expediency, and bias

*(Weimer, 1984)*

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# How to Reward Professionals

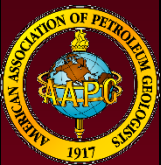
- ◆ Raises
- ◆ Promotions
- ◆ Job security

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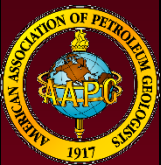
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# Being A Pro

- Commitment to high quality work
- Do not cheat on time
- Maintain confidentiality
- Avoid conflicts of interest
- Be worthy of trust
- Be on the "leading edge" (*Spoelhof, 1992*)



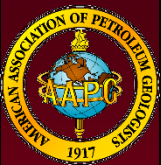
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Professionals must interact with local, community, state, and national agencies and legislative bodies to give public recognition of the Professional.



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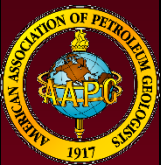
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# Concluding Thoughts

- ❖ Codes of conduct and ethics
- ❖ Practicing, embracing, and promoting Professionalism
- ❖ Professional Societies
- ❖ Mentoring
- ❖ Working on Professional recognition and image issues
- ❖ Long 'termism'





# Suggestion for Students

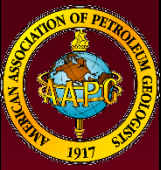
- ◆ Life long learning
- ◆ Goal Setting
- ◆ Attitude
- ◆ Pride in your work
- ◆ Believe in yourself
- ◆ High Ethics
- ◆ Learn teamwork skills
- ◆ Build your net
- ◆ Learn leadership skills
- ◆ Enjoy what you do

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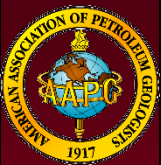
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