

Bauman's Inferno

The Divine Comedy of Analysis Quality



Naval Postgraduate School

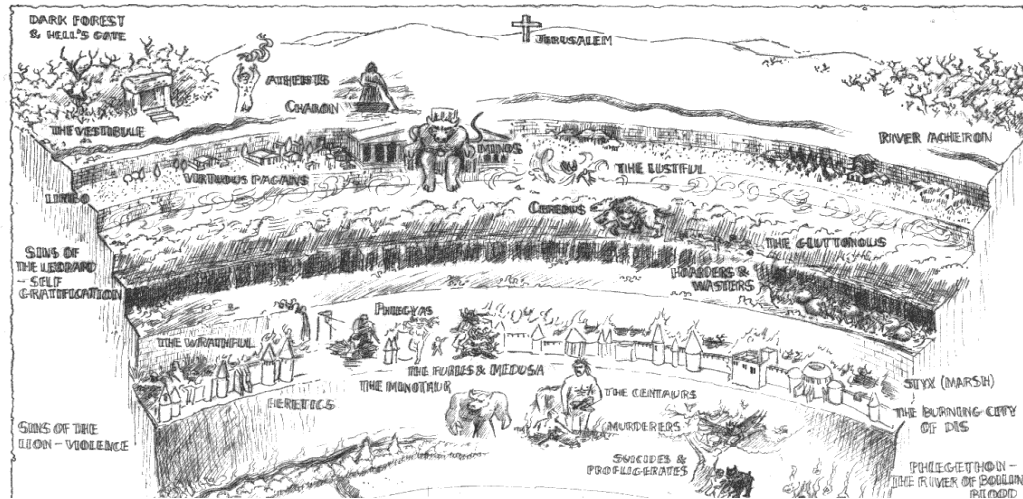
26 July 2010

Purpose

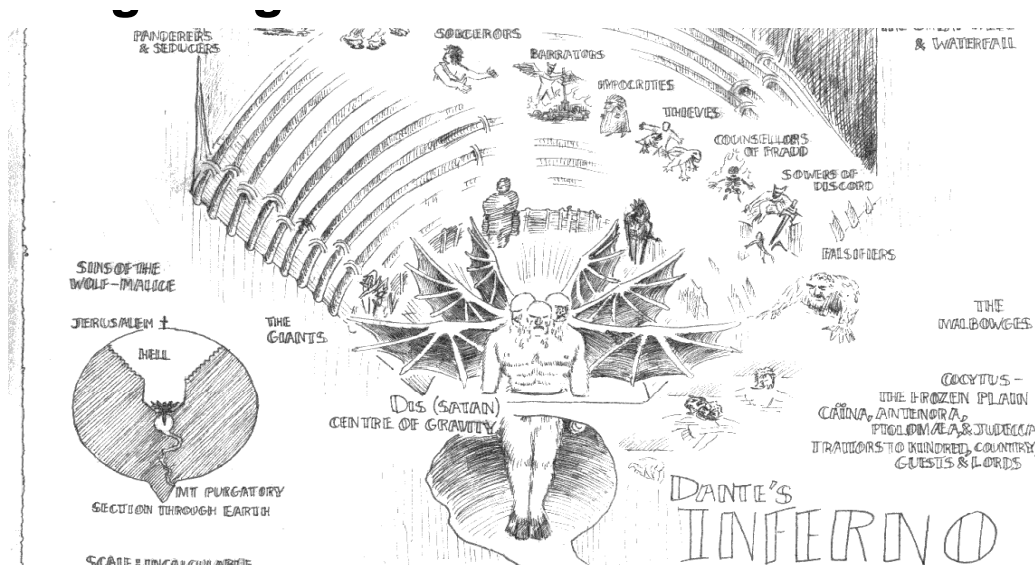
To again engage analysts about:

- **The paramount importance of quality in our research and analysis, and**
- **What constitutes acceptable quality in our analysis.**

Dante's Inferno



“Abandon all hope, ye who enter here.”



Dante's Divine Comedy

- Hell is occupied by the unrepentant who did not pray for forgiveness before their death. The 9 circles are:

1st: **Limbo**, where the **un-baptized** and **virtuous pagans** grieve, but are not punished.

2nd: **Lustful.**

3rd: **Gluttons.**

4th: **Miserly hoarders, covetous.**

5th: **Wrathful** (above River Styx) & **slothful** (below).

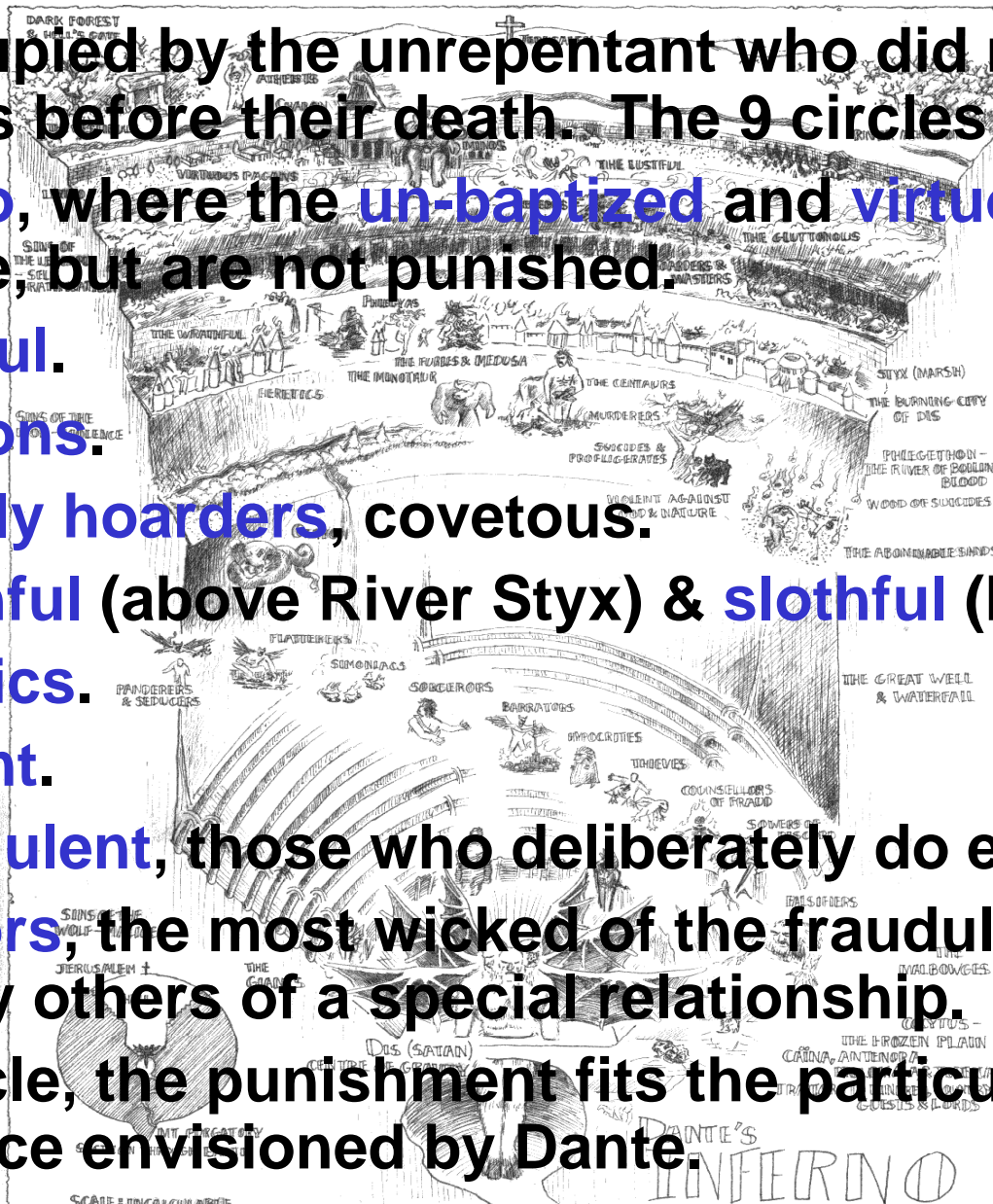
6th: **Heretics.**

7th: **Violent.**

8th: **Fraudulent**, those who deliberately do evil.

9th: **Traitors**, the most wicked of the fraudulent who betray others of a special relationship.

- In each circle, the punishment fits the particular sin in a poetic justice envisioned by Dante.

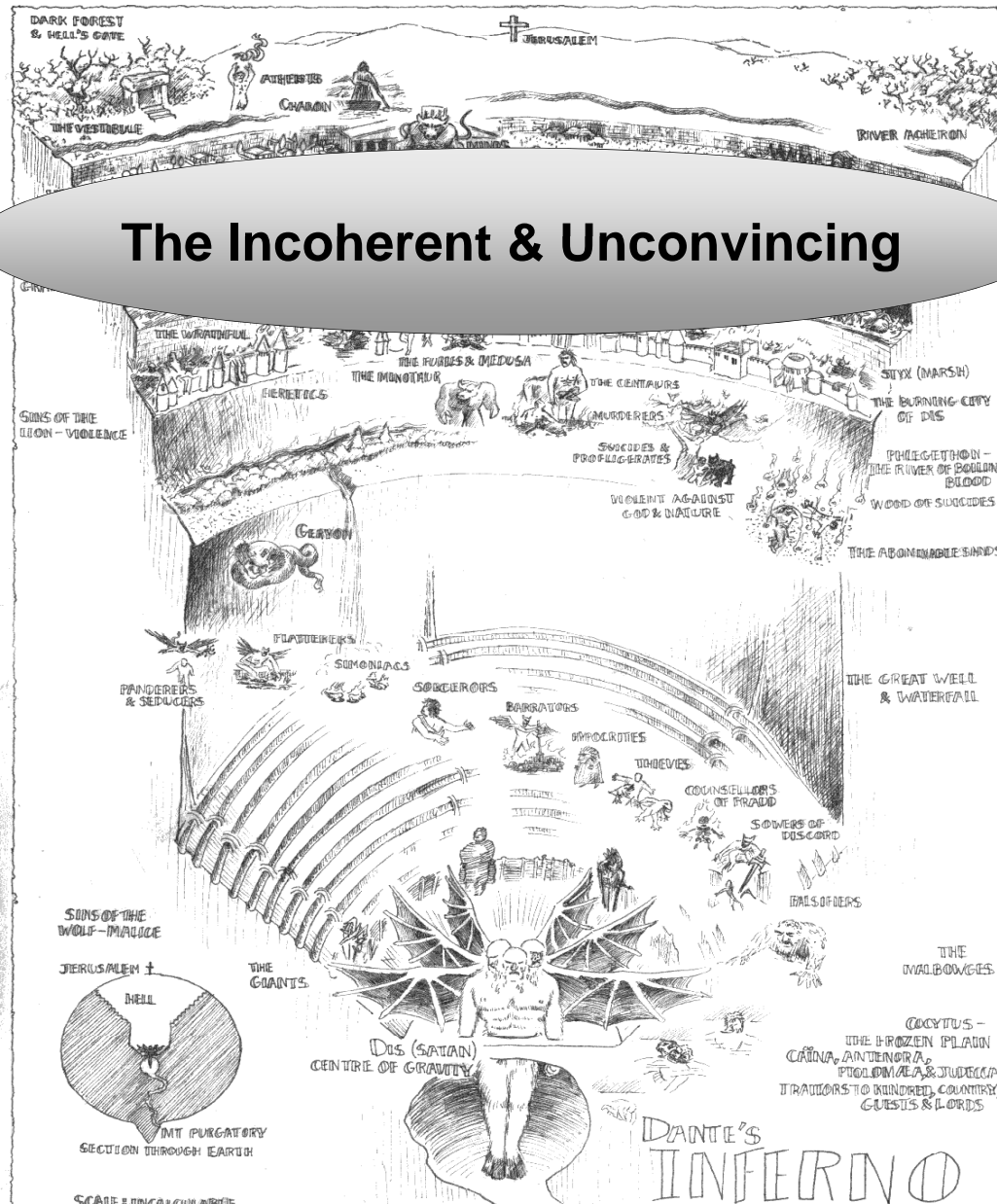


Temptations to Sin

- **Accept problem as stated or given.**
- **Yield to pressure to deliver “right answer.”**
- **Desire to please with “right answer.”**
- **Cut corners, e.g., due to press of time.**
- **Oversubscribe to your own research.**
- **Promote your own agenda.**
- **Avoid professional embarrassment.**
- **Just being lazy.**

Circles of Hell for Analysts

The Incoherent & Unconvincing

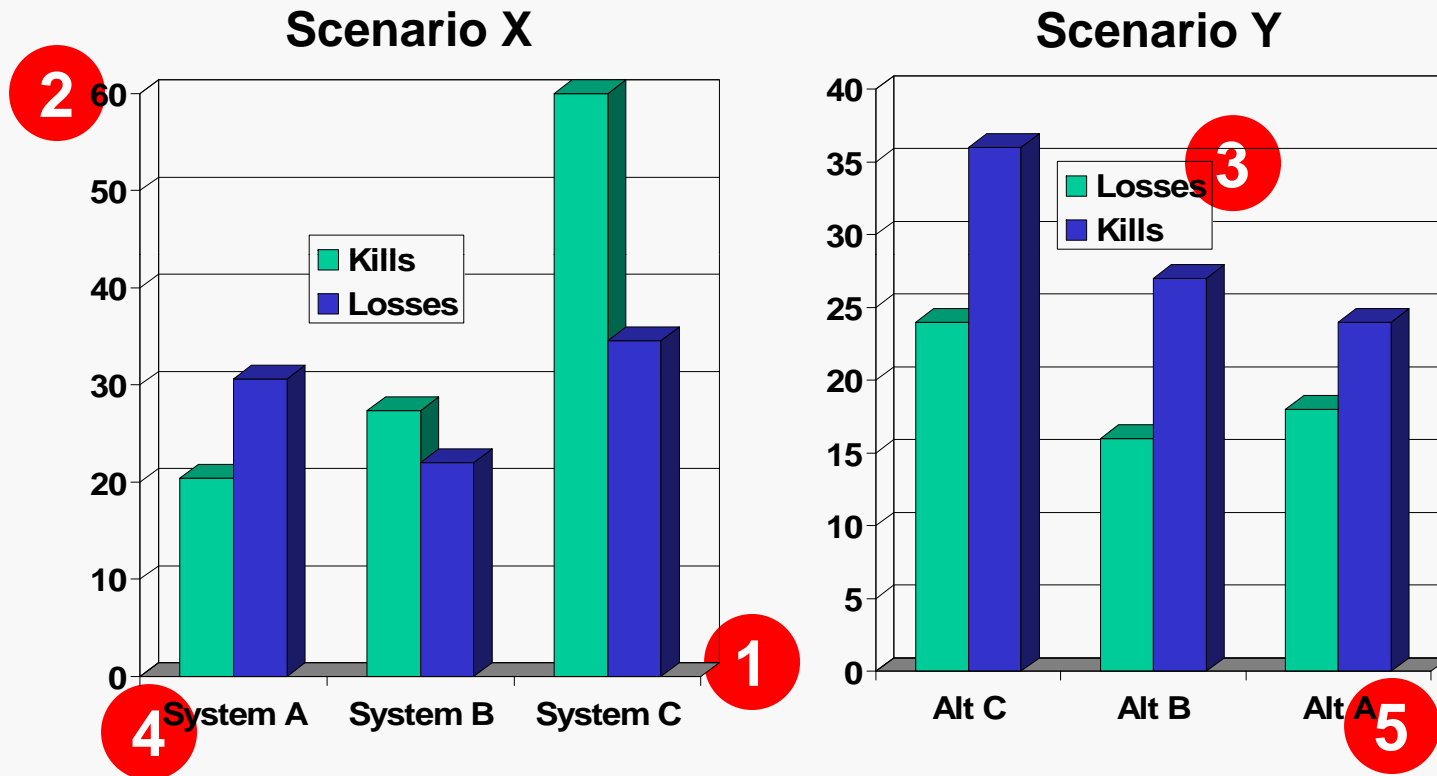


Communication

- First and foremost, effectively **explain the “why” – not just the “what”** of your research and analysis. Say what it means.
- **“Speak the language”** of your target audience, whether oral or written.
 - For operations analysis, **resonate with the warfighter**, i.e., describe the operational significance of your work.
- **Always tailor** your product for the **intended message**.
 - **First prepare outline** of your product before creating it.
 - Do not rely exclusively on **archived material**.
- Use the spoken word to **complement (not duplicate) slide content**. Create and brief each slide accordingly.
 - Either **emphasize** (highlight) or **amplify** (explain further).
- **Prepare talking points and rehearse, rehearse, rehearse!**

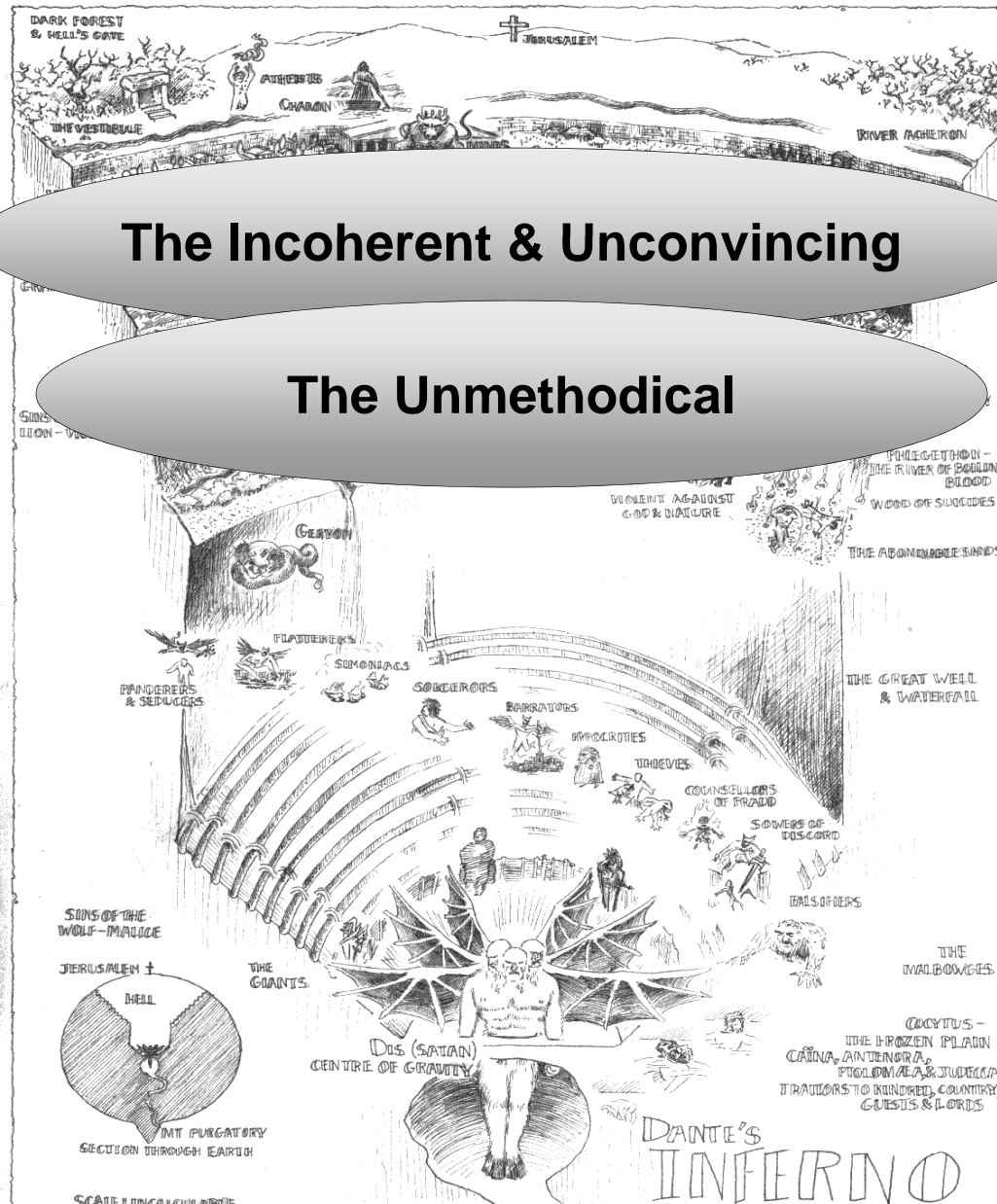
Presentation “Code Violations”

This slide has 6 common “code violations.”
Can you find them?



- System C kills more than Systems A and B.
- System B survives better than Systems A and C.

Circles of Hell for Analysts

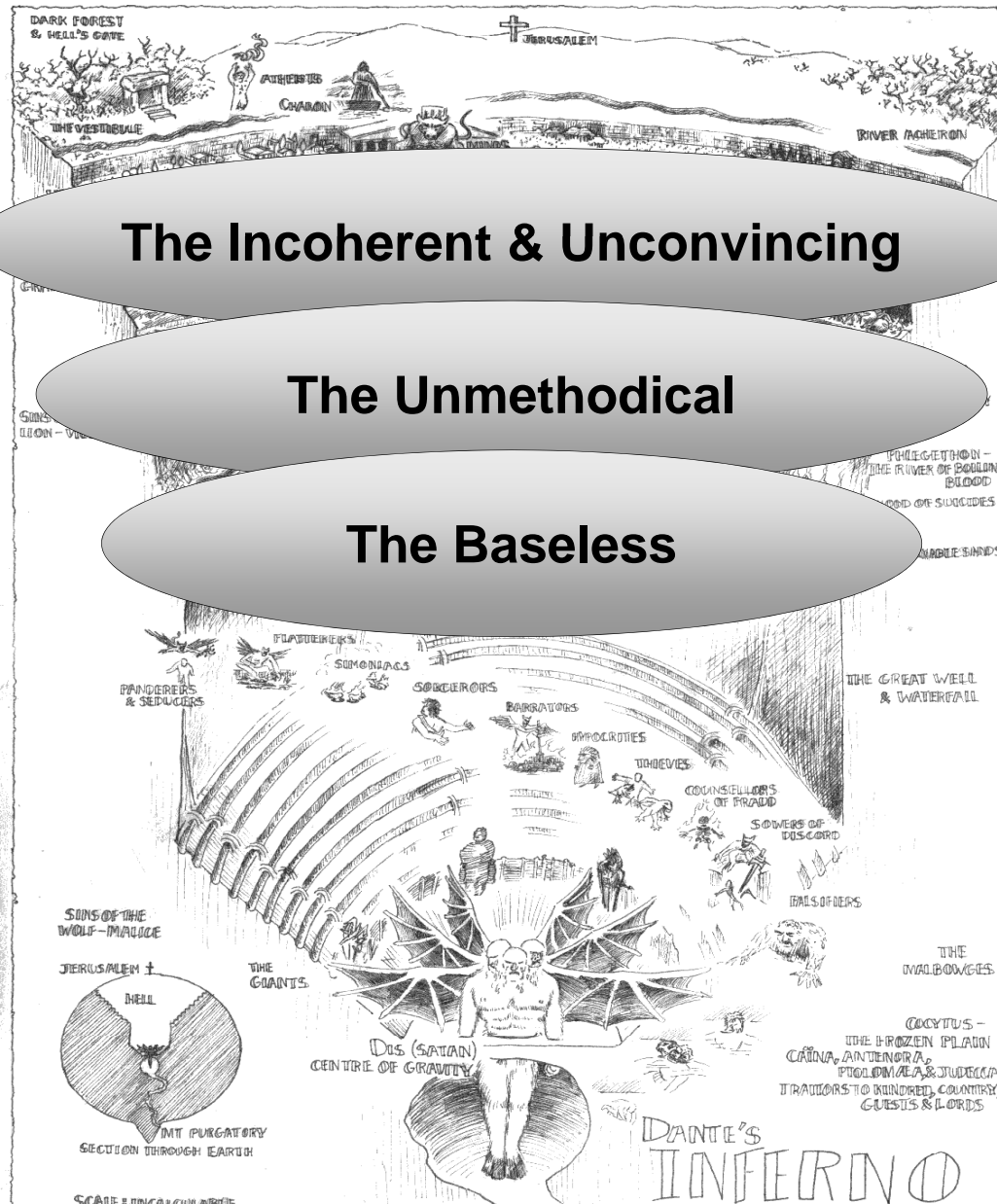


Methodology

- First and foremost, **nail down the real problem** at hand and **create and tailor a methodology** that is most relevant and appropriate to it.
- Understand your **constraints and limitations**, and account for them in your methodology and **assumptions**.
 - If possible, include testing of the key assumptions.
- Compose the methodology as a **logical process** made up of constituent components or sub-processes.
 - Identify the **purpose, tasks, means and/or tools** of each component.
 - Define the **inputs and outputs** of each component.
 - Apply **project management** techniques (PERT/CPM).

No amount of math can overcome an initial error in logic.

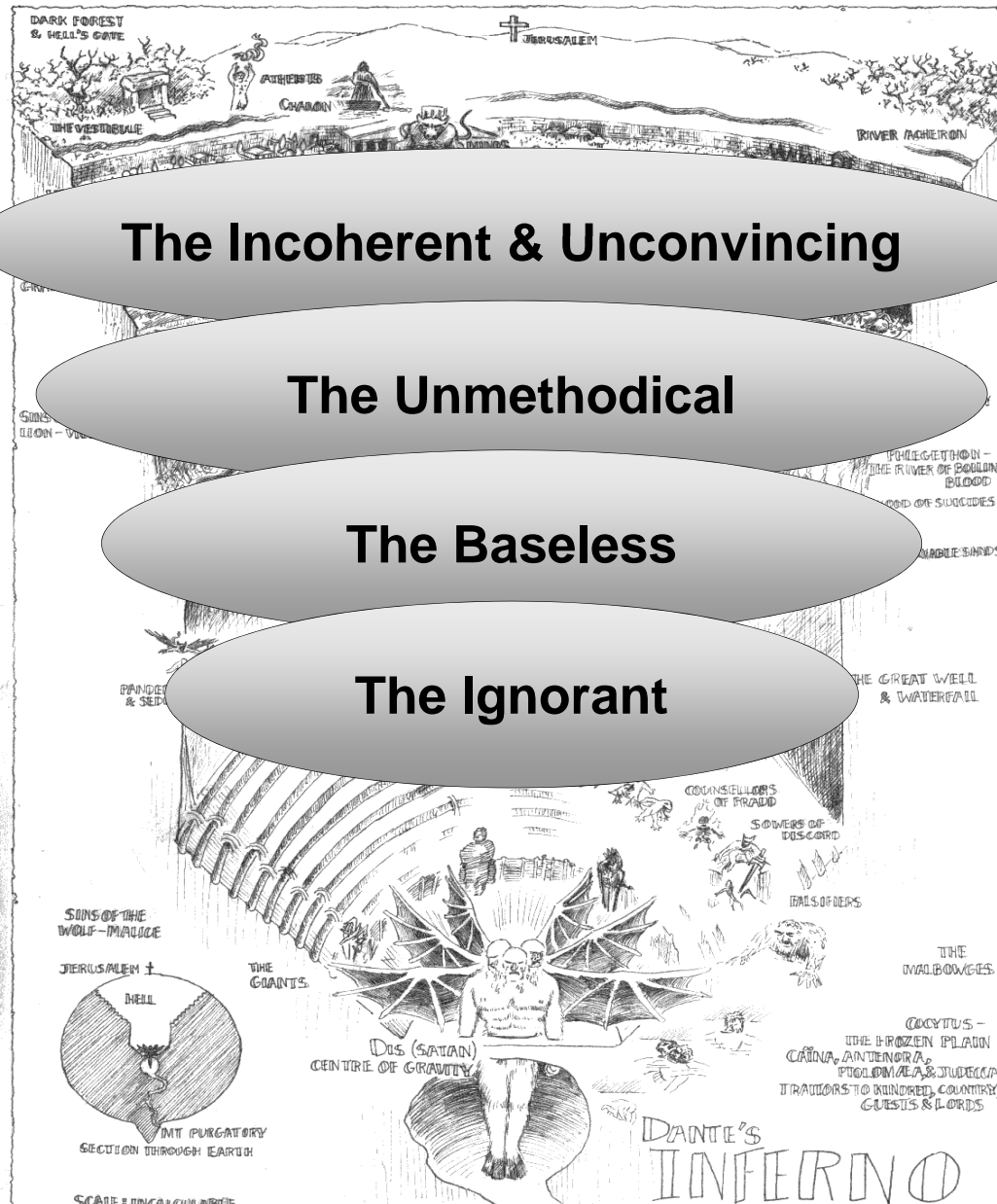
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Teaming & Sourcing

- First and foremost, rely upon the **most respected, trusted, incontestable authorities – the “very best.”**
 - For **participants** (e.g., OR specialists, study team members, role players, gamers, senior reviewers).
 - For **input** (e.g., concepts, system descriptions, alternative definitions, technical and operational data, surveys).
- For each participant, identify their **required knowledge, competencies, skills and/or experiences**; then recruit and **accept only qualified individuals**.
- Use input only from **legitimate authoritative sources**.
- **Reach outside your unit or agency to access the very best** (after all, O.R. is built upon teaming).
- As necessary, **engage your chain-of-command** to get what you need: the very best participants and input.

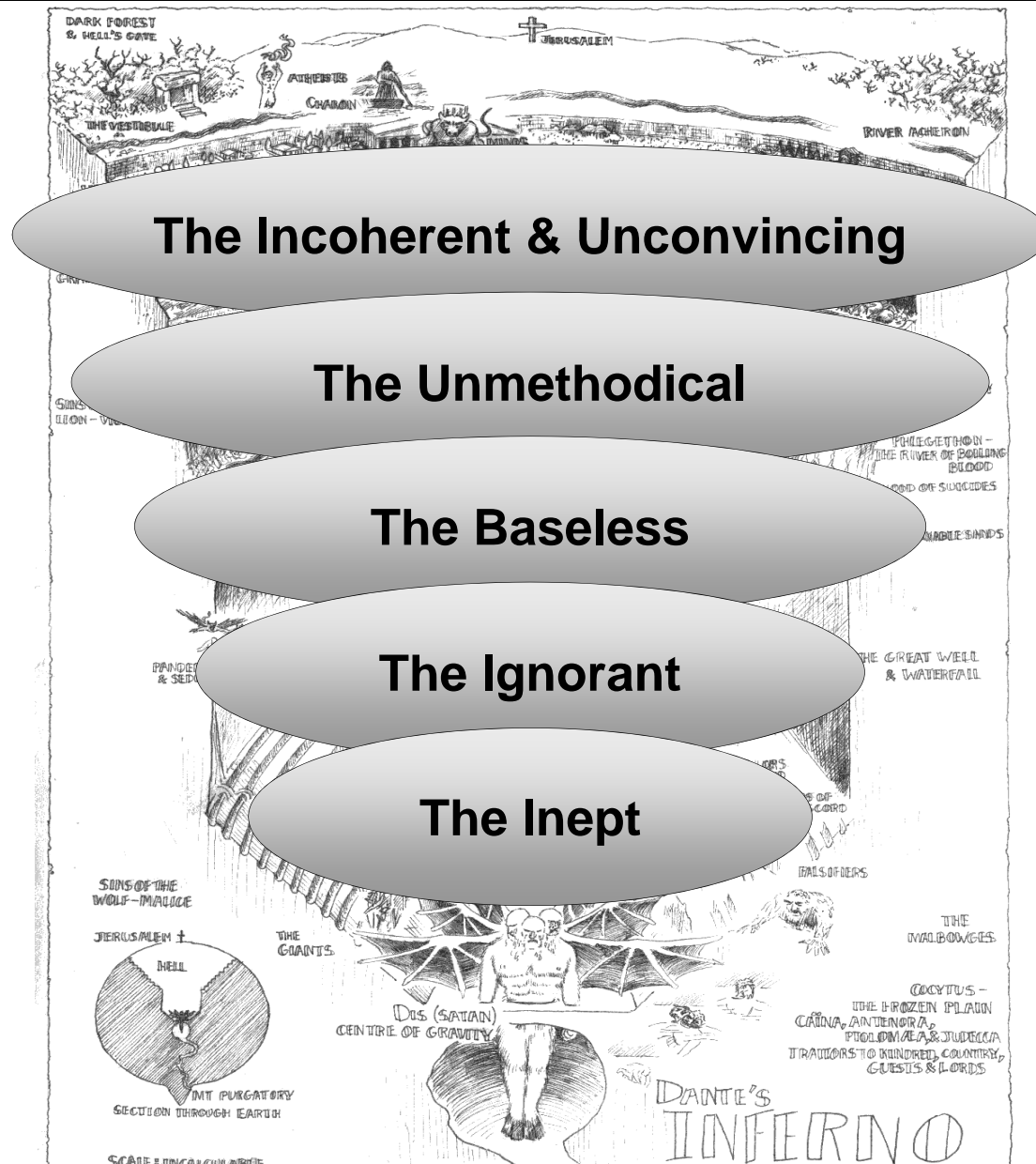
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Problem Knowledge

- First and foremost, **know and understand what you are analyzing.**
- **“Go to school”** on the problem; learn every relevant thing about it and be able to field any question whether asked by ally, adversary or critic.
- Know everything about the **constituent parts** that make-up your analysis and their relationship to the problem and role in the methodology.
- Know the **“players”** and their roles and stakes.
- Based on your acquired knowledge, **act with conviction.**

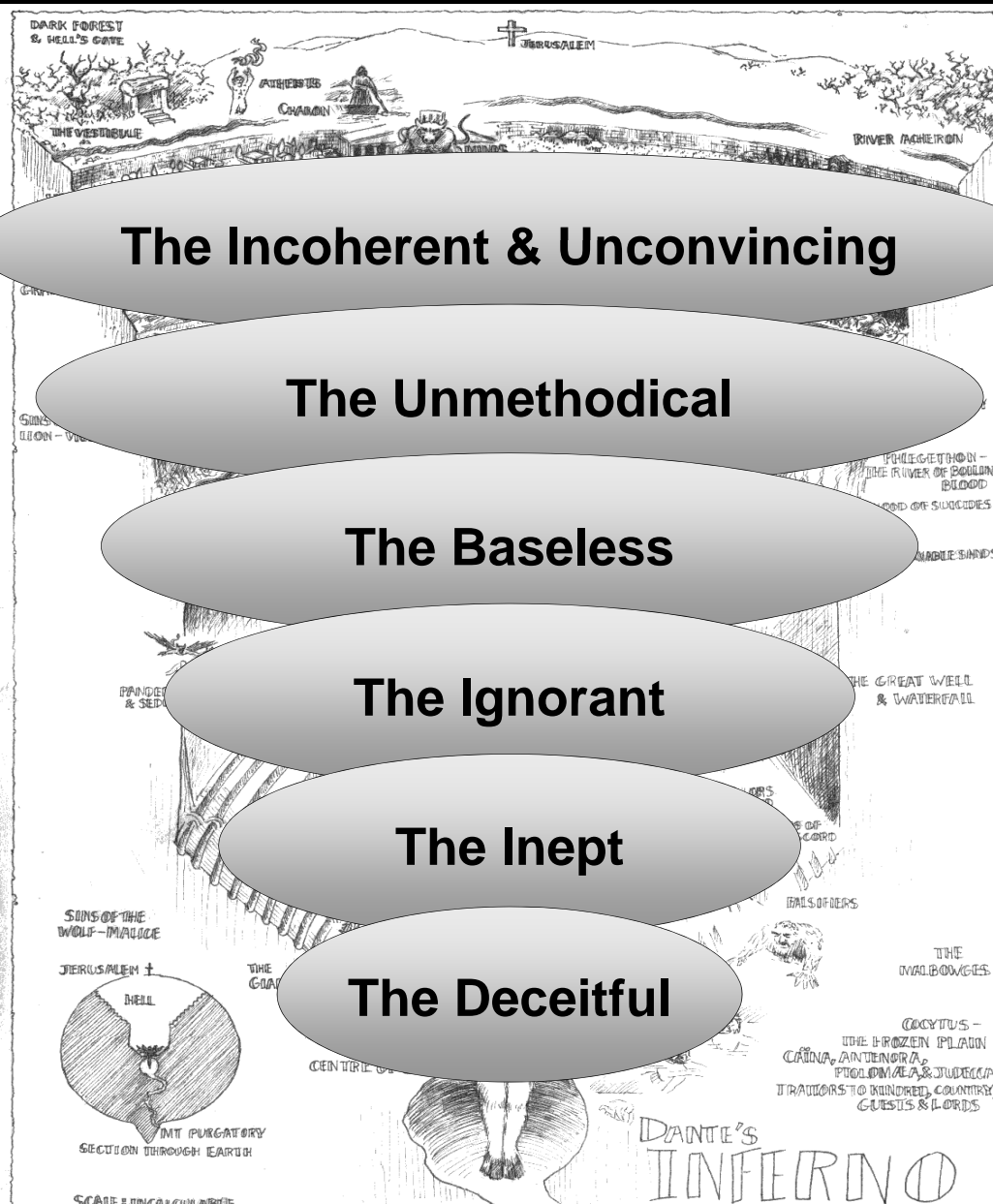
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O.R. Competence

- First and foremost, **know and soundly apply the principles of scientific inquiry and operations research**, and related disciplines.
- If you are not an expert on a particular O.R. technique, **seek out those who are** for advice and assistance.
- **Be a life-long learner**; stay abreast of new O.R. advances and techniques for potential use.
- Achieve and sustain the **highest possible credentials**.
- Select the **“right” O.R. technique for the “right” class of problems**, and apply it correctly.
- Be able to **irrefutably defend** what you plan to do or have done.
- Engage others with humility.

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Integrity

- Without question, the analyst's single **greatest sin is the purposeful act of dishonesty and deception.**
- To achieve integrity in our analysis, it must always be:
 - Conducted with **objectivity and without bias.**
 - Derived from the **credible evidence** at hand.
 - **Reported honestly and forthrightly** without fear of reprisal.
- Customer **trust and confidence** rests upon analytic integrity.
 - Revealing **“constraints, limitations and assumptions”** is important.
- **Without integrity, the military analyst is a fraud** who betrays the only Shareholders of our analysis: Our Nation's Soldiers, sailors, Marines and Airmen.

Quality Salvation

- **The consequence of our analysis mission demands the highest possible quality in our products.**
- **Our continued relevance and reputation rests upon the quality of our research and analysis.**
- **Quality is learned; and achieved by doing, accepting feedback and criticism, and doing again.**
- **Our personal pursuit of quality never ends; it is a career-long commitment.**
- **Each of us is personally responsible for the quality of our work.**

My Philosophy

- **Quality is planned for and built-in** as you work, not added after-the-fact by someone else.
- Like it or not, **the customer is the ultimate judge** of the quality of your work and products. And it is **based on what you communicate or report to them.**
- What constitutes quality is not an intangible or simply a personal opinion; **acceptable quality is defined by standards and codes of best practice.**
- Quality is the responsibility of each individual. If you produce something, anything, **you are responsible for its quality.**

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