

Mid Term #2

1. Reaching last place on Earth
L.2 Ch 21 - Scott says

1. They found out through telegram while en route and it shocked them

2. They were purchased in Siberia, after being transported by ship through rough seas which left them injured / weakened.

L.2 Ch 22 - Base at Framheim

1. Bay of nebrakes is closer to the pole and on flat ice which leads to easier travel but Cape Evans is less shifting ice and unstable conditions.

2. Customized sledges, efficient stoves and snow caves.

3. They assumed at least half surplus of original amount,

1.3 Ch 23 - Sledging with the Omen

1. The heavy loads made it riskier to travel on the ice so saving supplies was for next effort.

2. The strict hierarchy of Scott's command makes it hard for his team to adapt to change in autonomy versus the Norwegian leadership had trust in team members to make smart choices.

1.4 Ch 24 - Pole sacker prepares

1. Single point of failure is a component that holds a complex system in place which jeopardizes it in failure.

Examples from the text can be poles as mode of transport for Scott's team and Dog sledges for Amundsen's team

2. good food, warmth, and cheer from the cook kept morale high. And lectures from Anderson, encouragement of personal projects, and routines kept the sense of purpose throughout the long trip.

1.5 Ch 25 - Wintering at Cape Evans

1. He chose motor sledges, power, and man hauling (which was the ultimate method of choice, aka the slowest & exhausting method)

2. It's more ridged and formal hierarchy, it didn't matter if they had more field experience as opposed to Franklin even if failures existed. So I'd lean more into Mentocracy.

1.6 Ch 26 - False Start

1. They started way too early (in spring) and Johansen and some of the team had to forgo the south pole trek.

1.7 Ch 27 - Scott's Caravan

2. Ignoring advice & poor delegation were the major early signs of his error which were exacerbated due to the military structure.

1.8 Ch 28 - Devil's Balloon

1. A lot of glaciers and crevasses and they overcame it by using well trained dogs & planning their routes.

2. The sun position is almost fixed which makes it hard but the accuracy is important.

1.9 Ch 29 - Man hauling Begins

1. They found it to be exhausting but because of the rigid structure they couldn't complain.

2. It wasn't a steep slope with unknown routes.

1.10 Ch 30 - the race was

1.11 Ch 31 - the race lost

1. Amundsen beat Scott to the pole by a month (34 days)

2. They lacked vitamin C

2. Reading Deep Survival

2.1 Ch 5 - anatomy of an act of God

1. "Sometimes an Idea can drive action as powerful as an emotion" & "In nature, adaptation is important; the plan is not."

He didn't treat this like a case of its own rather relied heavily on his past experience. From defensible weather they've ignored to miscalculating how it would take they were set up for failure.

2. Cotton is called a 'death fabric' because it retains moisture & doesn't insulate. St. Elmo's is a weather phenomenon that happens just before a lightning strike

2.2 ch6 - The Sand Pit effect

1. Power-law effect shows us that rare, extreme events are part of natural pattern, not random outliers. A sand pile collapses regularly because it reaches a critical tipping point.

2. "The accident at Mount Hood was predictable but no one could know which climbers would fall, where or when or with what injuries"

Climbing at Mount Hood involves navigating a dynamic complex environment where small changes like a shift in weather or wrong step - can trigger a chain reaction. An event is inevitable because it's built into the system.

2.3 Ch 7 - the Rules of Life

1. The quote and Scott's failed expedition both illustrate how rigid hierarchies and reluctance to speak up can lead to disaster.

"A fire survivor would be attuned to those subtle cues, the whisper of rebellion, which might have been saying, 'I don't feel quite safe here.'"

2.4 ch 8 - Danger zones

1. "One of the things that holds us as witnesses, in nature, is that we just don't understand the forces we engage... Even when we're told, ... most of us don't embrace the facts or that emotional way that controls behavior."

Intuitively understood nuances, currents, and energy, respecting the environment which leads to situational awareness, and emotional regulation

2. The same mindset and mindset as the life guard helped him stay alive. Emotional regulation, mental endurance and make the best of a bad situation. If he hadn't went out alone, with limited gear, in a deteriorating weather he wouldn't have been stranded.

3. Scientific Studies

1. Researchers found a never-before-seen ecosystem lurking in an underground river one third of a mile beneath an Antarctic ice shelf. Team of scientists from New Zealand drilled through the ice shelf & dropped a camera into cavern below
2. They speed toward a seal on ice, rotate to their sides in unison, and create a powerful wave to wash the seal off the ice floe, which disables their prey before eating it.
3. The goal is to detect neutrons to understand cosmic events using ice as a detector. Because when it hits large mass of ice it creates a flash of light which is then detected by sensors.

- 4.
- Ice cube neutrino Observatory
south pole
Orbison of cosmic rays
 - South pole telescope (SPT)
Cosmic microwave background
 - ANITA - Antarctic impulsive transient Antennae
High energy Astrop physics
 - West Antarctica Ice sheet divide
CO₂ levels over the last 100,000 yrs

Why there? because: Cold dry, minimal
light pollution, and stable atmospheric conditions

- 5.
- 2013: First high energy cosmic neutrino
detection, 'Bert' & 'Ernie'
- 2018: traced a neutrino back to its
source, a blazar

- 7.
- They drill deep holes into Antarctica ice sheet,
extract ice cores and analyze trapped
air bubbles which are CO₂, CH₄, ¹⁸O & ¹⁶O.

Modern temperature & gas conc. data are used as a baseline and compared to isotope ratios in contemporary snow fall & air to historical data.

4. Bonus: Solitude & leadership

A good leader is someone who can think independently who involves reflection & moral courage, which are qualities often cultivated in Solitude.

Modern education trains people to be efficient, obedient, and competitive which helps pass tests not become an independent thinker. General Petraeus is one who excelled in both.

Solitude gives us the mental space to clarify our priorities which can be lost in the noise if we don't filter it out. For me 'Big picture' information is important. Either

end goal of a fast or primary motivation
of people, I like starting with why.
Then work through it with my moral
compass as a guide & 'trust but verify'
as a leading principle.