



Herding Sheep

Diplomarbeit Kickoff Presentation

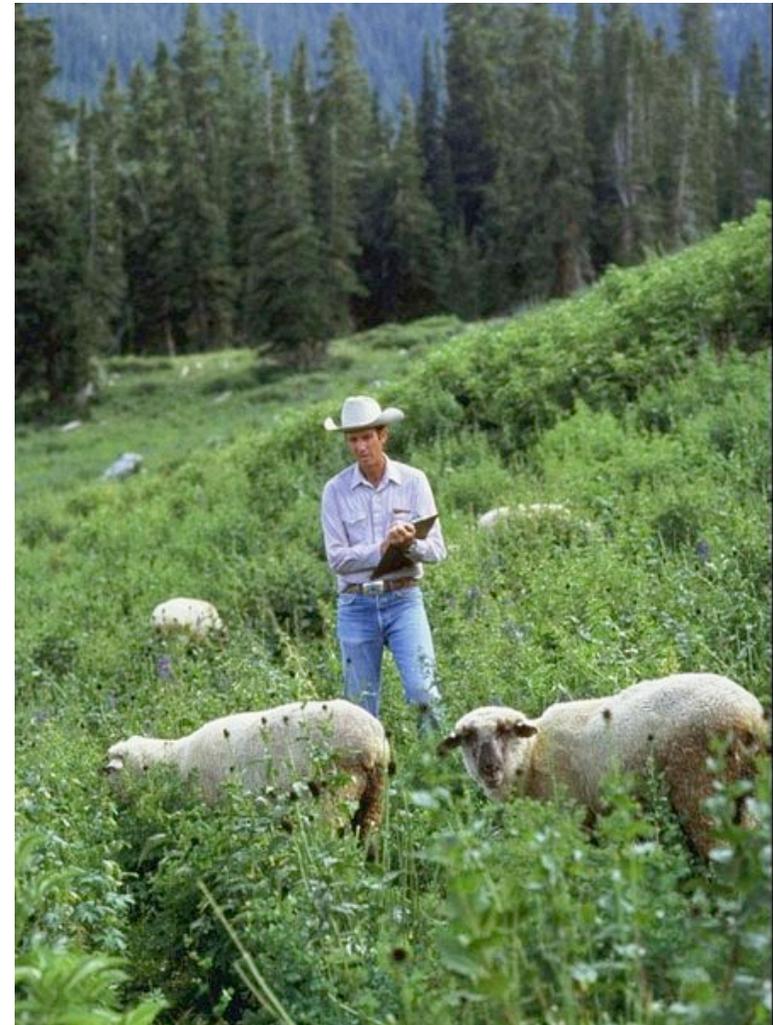
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Chair for Computer Aided Medical Procedures & Augmented Reality

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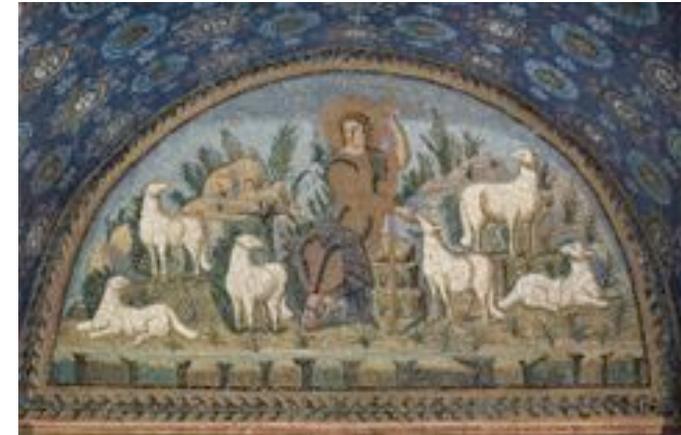
Domestic sheep

- Latin name: *Ovis aries*
- The most common species of the *sheep* genus
- Sheep breeders refer to
 - female sheep as *ewes*
 - male sheep as *rams*
 - young sheep as *lambs*
- There are many breeds of sheep, general subclasses are:
 - wool sheep
 - hair sheep
 - meat sheep
- Some breeds exhibit a strong flocking behaviour.



Herding Sheep — What have others done?

- Shepherding is one of the oldest professions, beginning some 10,000 years ago in Asia Minor
- In christianity, Jesus is called ‚the good shepherd‘
- Modern times shepherding has changed dramatically
 - European expansion spread sheep around the world
 - Keeping a shepherd in constant attendance can be costly
- Shepherding in modern times has become dominated by agribusiness



What is the proposed approach?

- Get a sheep
- Clone the sheep to get a flock
- Keep the flock in a fenced-in field or paddock
- Train sheep to stay in a certain area without the need for fences
- Shepherd or Sheep dog for protection
- Shearing once per year per sheep
- Milk-fed lamb is meat from an unweaned lamb, typically 4 to 6 weeks old and weighing 5.5 to 8 kg
- Bake at 375 °F for about 45 minutes



What are your initial results?

- July 5th 1996 the sheep ,Dolly‘ has been cloned from an adult cell
 - originally codenamed 6LL3
 - name suggested by a stockmen who helped with her birth
- Died on February 14, 2003 on Ovine Pulmonary Adenocarcinoma (progressive lung disease)
- may have been susceptible to premature aging



What are the expected challenges?

- Shelter & Environment
 - Sheep are kept in flocks
 - need shelter in the winter
- Healt Care
 - Vaccination, Castration
 - Shortened tail for cleanliness
- Water, Food & Air
 - need fresh water from ponds
 - in some countries (e.g. New Zealand) there is enough moisture in the grass to satisfy them much of the time
 - eat eat hay, grains and grasses
 - most comfortable when the temperature is moderate



Questions?

□ Literature

- Campbell, K.H.S., McWhir, J., Ritchie, W.A. and Wilmut, A. (1996). "Sheep cloned by nuclear transfer from a cultured cell line". Nature 380 (6569): 64-66
- Wilmut, I., Schnieke, A.E., McWhir, J., Kind, A.J., Campbell, K.H.S. (1997). "Viable offspring derived from fetal and adult mammalian cells". Nature 385 (6619): 810-813.
- <http://en.wikipedia.org/wiki/Sheep>
- <http://en.wikipedia.org/wiki/Shepherd>
- http://en.wikipedia.org/wiki/Dolly_the_sheep

