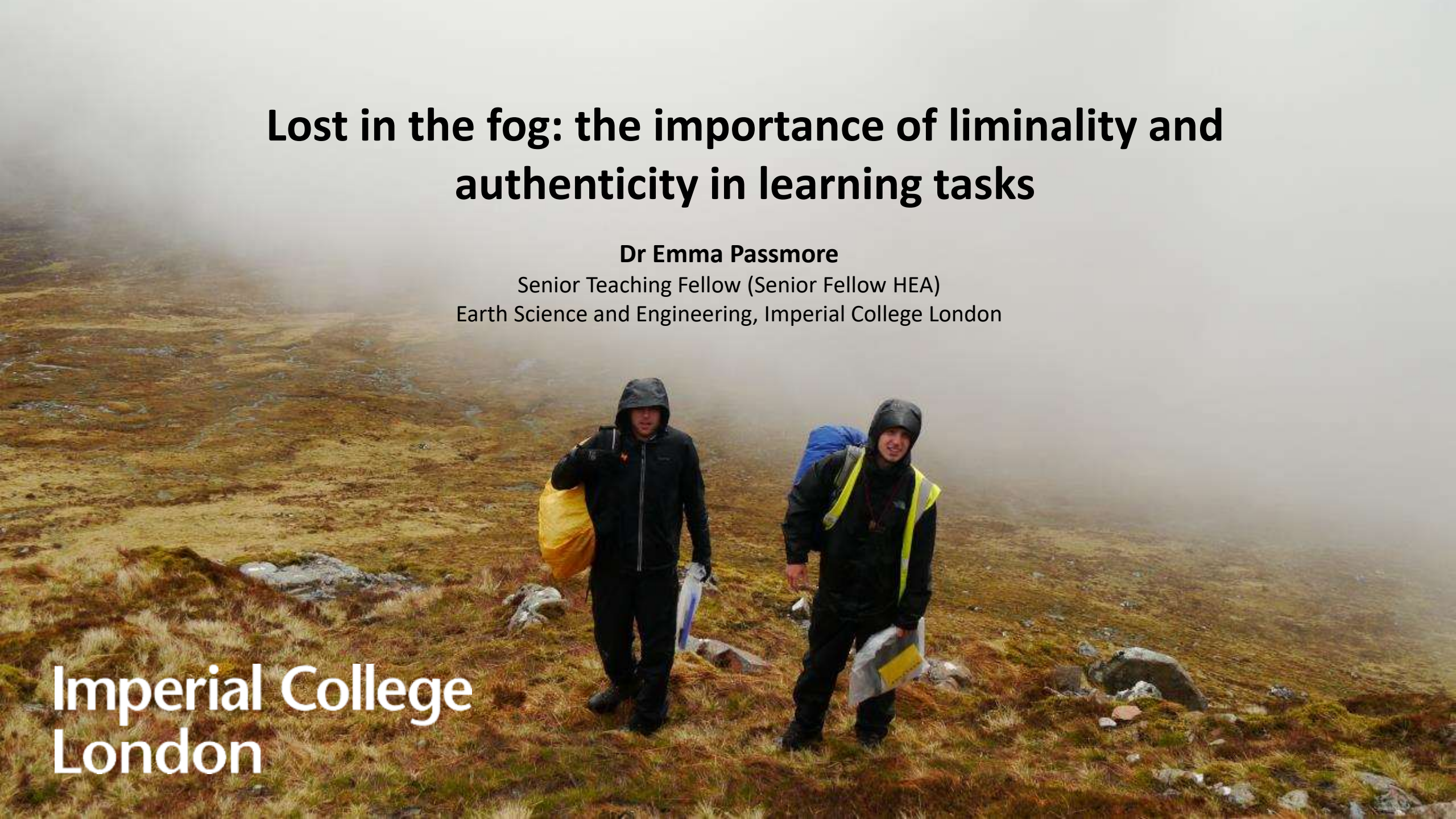


Lost in the fog: the importance of liminality and authenticity in learning tasks

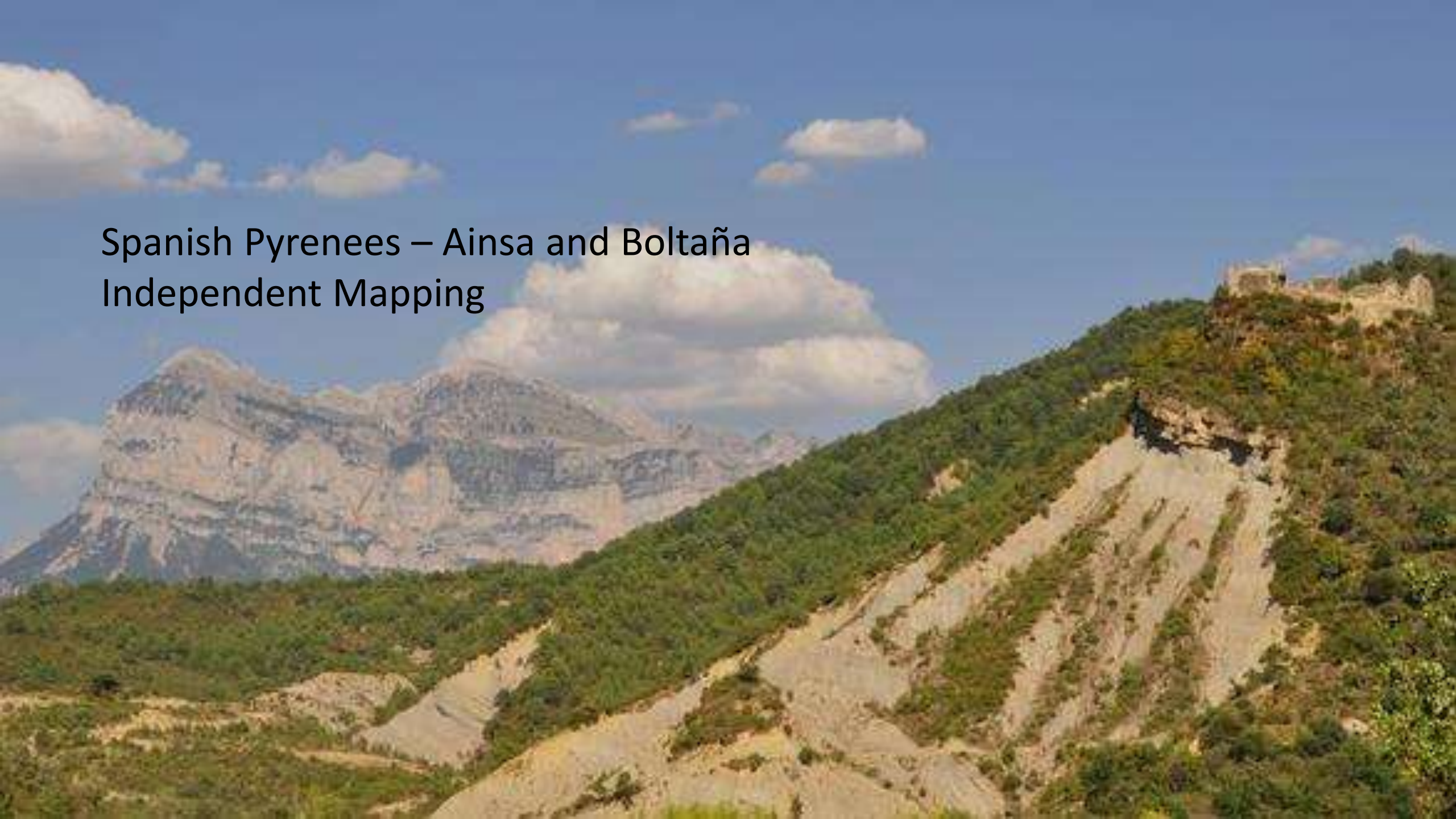
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London**

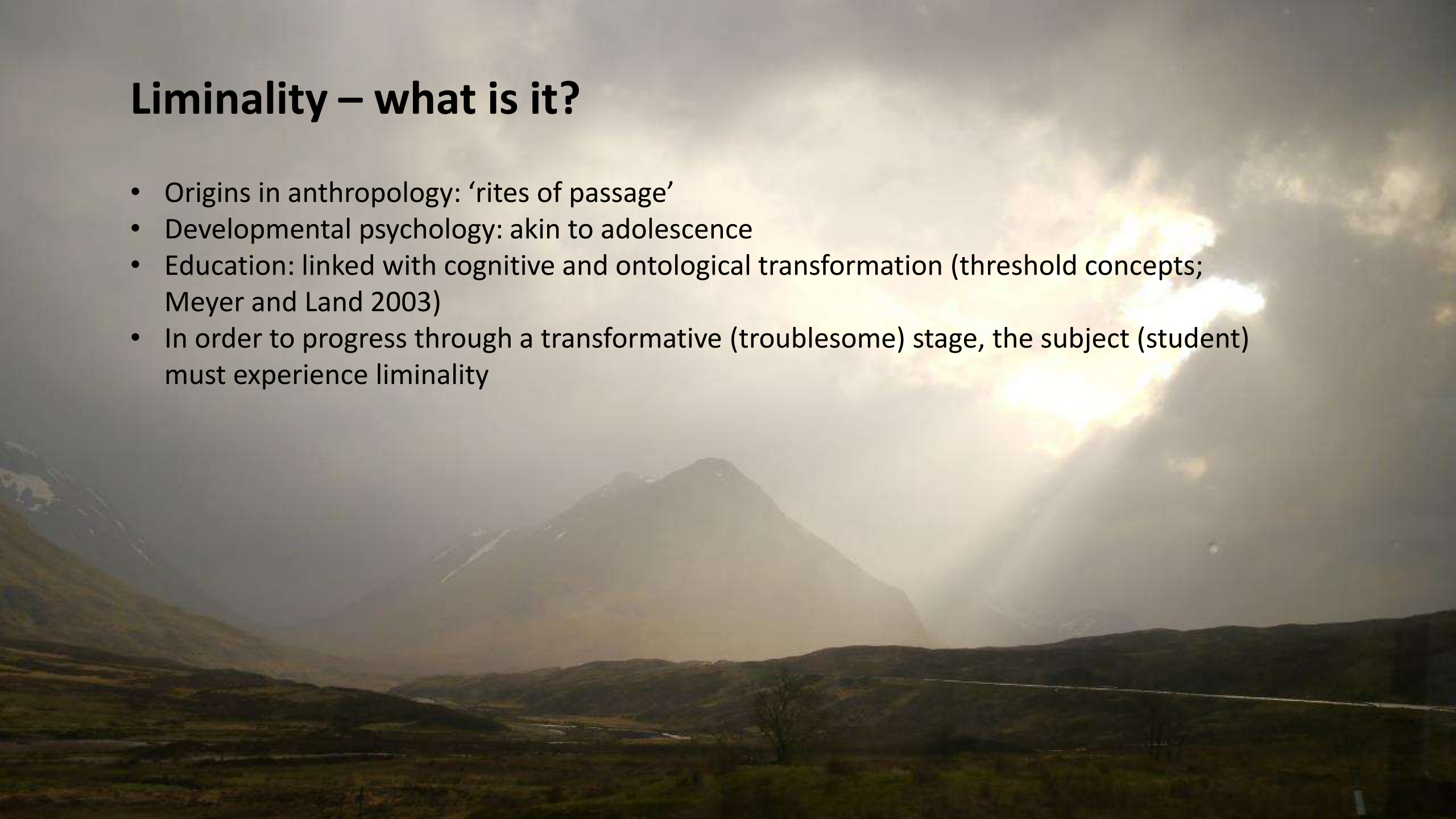


Spanish Pyrenees – Ainsa and Boltaña
Independent Mapping



Liminality – what is it?

- Origins in anthropology: ‘rites of passage’
- Developmental psychology: akin to adolescence
- Education: linked with cognitive and ontological transformation (threshold concepts; Meyer and Land 2003)
- In order to progress through a transformative (troublesome) stage, the subject (student) must experience liminality



Threshold Concepts

*“[a concept] without which the learner finds it difficult to progress within the curriculum”
(Meyer and Land, 2003)*

transformative

- fundamentally alters the way in which a student thinks and practices

irreversible

- once grasped, it cannot be easily unlearned

troublesome

- may sit uncomfortably with previous knowledge/understanding
- may require the student to ‘un-do’ previously acquired misconceptions
- requires accommodation of new ideas/processes



Liminality – potential rewards?

Mimics the uncertainty experienced by professionals in real-world vocations

The reward for the student who successfully traverses liminality is:

- Mastery of the subject (Threshold Concepts)
- Irreversible cognitive change (Threshold Concepts)
- Positive shift in identity and self-belief
(Communities of Practice; Lave and Wenger, 1991)
- A sense of pride, of a challenge overcome

Authenticity – what is it?

- Difficult to define!
- Used in marketing (and terrible inspirational quotes “be your true authentic self” etc.)
- In education, broadly synonymous with “real, genuine”, etc.
- More narrow definition for learning tasks (e.g. Herrington, 2006)

Students were asked for the first word that came to mind when asked to think about authentic learning:



Authenticity in learning tasks – potential rewards

Authentic learning tasks:

1. have real-world relevance
2. are ill-defined
3. comprise complex problems, investigated over a sustained period of time
4. can be examined from different perspectives
5. should be collaborative
6. should be reflective
7. can be integrated and applied across different subject areas
8. are integrated with assessment
9. create polished products valuable in their own right
10. allow for competing solutions and diversity of outcome

(Herrington, 2006; p.5)

Underlined = promotes liminality (troublesome transformation, struggle, discomfort)

Potential drawbacks

Liminality

- Liminality is uncomfortable, a struggle: “*a suspended state of partial understanding, or ‘stuck place’...*” (Land *et al.* 2010)
- Experiencing too much liminality can be detrimental to the student
- Too much discomfort = a dissatisfied student
- What happens if the liminal phase is never fully traversed?
 - Becomes a barrier to learning
 - Results in mimicry
 - Results in surface learning

Authenticity

- Can be difficult to achieve in the relatively contrived environment of the classroom
- Designing authentic learning tasks is difficult/time-consuming for the teacher
- Can be difficult to assess
- What happens if a task is too authentic?
 - Gives the student too much responsibility
 - Doesn't promote learning

Authentic (+ liminal) learning tasks in Geosciences

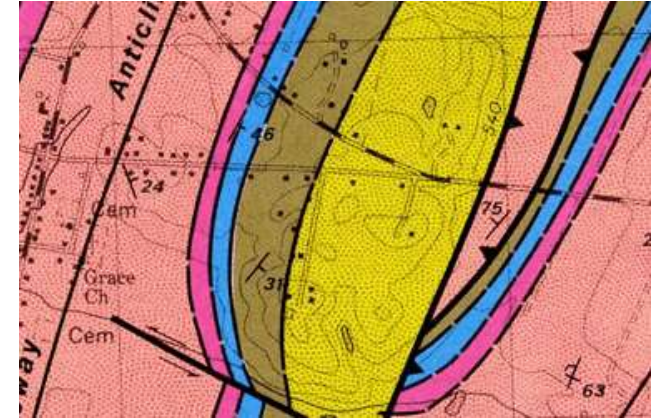
- Problem-based learning
 - Set a scenario, students must “solve it”
 - Business simulation exercises
 - Synthesis exercises (Earth Science project)
 - Independent fieldwork



Independent mapping as an authentic learning task

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Independent mapping as an authentic learning task

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Independent mapping as an authentic learning task

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(Herrington, 2006; p.5)



Insights...

Authentic learning tasks:

- ✓ Deliberately incorporate a liminal period, which promotes learning gains
- ✓ Mimic the competencies demanded of professional practitioners
- ✓ Transform student understanding of the subject, and perhaps even their perception of themselves
- ✗ Can be difficult to design, teach and assess
- ✗ Can be resource-intensive (time, staff-input, money)

Shouldn't be avoided just to boost short term student satisfaction:
discomfort (liminality) is necessary for transformative learning

Liminality, authenticity and teaching excellence

Excellent teaching could mean:

- Designing challenging, 'authentic' learning tasks for our students
- Deliberately incorporating liminality into learning tasks (e.g. less structured, more time to complete)
- Giving them the physical and mental space to navigate the resultant 'fog' themselves



Without being lost in the fog
occasionally, our students can't
become geoscientists



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