Geomorphology Mid-Semester Project

Over the next week, you will work with a partner of your choosing to complete the mid-semester project. The project is a large concept sketch that should show your mastery of concepts we have covered in class since the beginning of the semester.

What to include

The sketch that you and your partner submit together should identify and include information about the following concepts, actions, and landforms. Please review the attached sheet about concept sketches and make sure that your captions include all four levels of thinking (identification, process, prediction, and interactions). Each one of these eight features should be captioned and connected to the sketch with an arrow.

1. Point bar/cut bank pair and meandering
2. Flood deposits
3. River Terraces (3)
4. Flood Plain
6. Human modification of channel
7. Biotic interaction/woody debris/riparian zone
8. Sediment sourcing and transport

In addition, your concept sketch should include at least several embedded smaller sketches. Each of these smaller sketches should be labeled with concise but informative explanations and each should include all four levels of thinking (identification, process, prediction, and interactions).

A. An interpreted **cross section** through the channel and including the banks along A to A'.
B. An interpreted **long profile** along the tributary labeled B to B'.
C. Schematic and interpreted **soil pit profiles** at sites **C**-Pit1, **C**-Pit2, and **C**-Pit3.

Hints for doing well

Review the concept sketch guidelines at the end of this handout and follow them explicitly (http://www.uvm.edu/~geomorph/2008/pages/concept_sketch.htm). Include everything mentioned above. Review the concept sketch examples hanging outside Del 307. Spend at least the 6 class hours working on this project. Edit and proofread your captions. Make a draft sketch using the 8.5" by 11" version we provide. Transfer your work to the final poster-sized version.

Evaluation

Your projects will be evaluated using the following criteria.

a. (20%) *Overall appearance and readability* – The best sketches will be clear, easy to read and to the point but with sufficient detail and correct spelling and grammar. Feel free to type out and attach your descriptions if your handwriting is unreadable.

b. (80%) *Content*
- sketch includes required information (1 to 8 and A to C in above lists)
- each caption includes identification, process, prediction, and interactions
- captions are factually correct

This assignment is due at class time (12:20) on Friday October 10. Assignments handed in later on Friday will lose 10% of their grade. Assignments handed in any time on Saturday will lose 20% of their grade. Without prior permission, assignments will not be accepted after Saturday.

Concept Sketches –Creating the Best Sketch

Concept sketches are an annotated diagram that describes a system and how it works. Concept sketches deal with spatial and temporal information in a variety of ways that not only identifies landforms and features but explains processes and makes predictions while identifying inter-relationships between labeled objects and places.

The best concept sketches will have the following characteristics.

1. The best sketches will be neat, with clear diagrams and readable, concise captions.

2. The best sketches will have concise captions rather than extended transcriptions of field notes. Every caption should include four specific levels of thinking.

a. The caption should identify geomorphic feature in concise terms.
b. The caption should explain the relevant processes and/or history.
c. The caption should make predictions about the future evolution of the feature.
d. The caption should identify inter-relationships and linkages with other features.

3. The best sketches will avoid numerical keying of observations and instead use arrows and balloons to link ideas to locations on the sketch.

4. The best sketches will be attractive, well organized, and easy to read and understand. Some will include small sketches within the overall sketch to illustrate detailed morphology or processes. Others may include the use of color if it clarifies concepts. Captions may be handwritten or typed but must be readable.