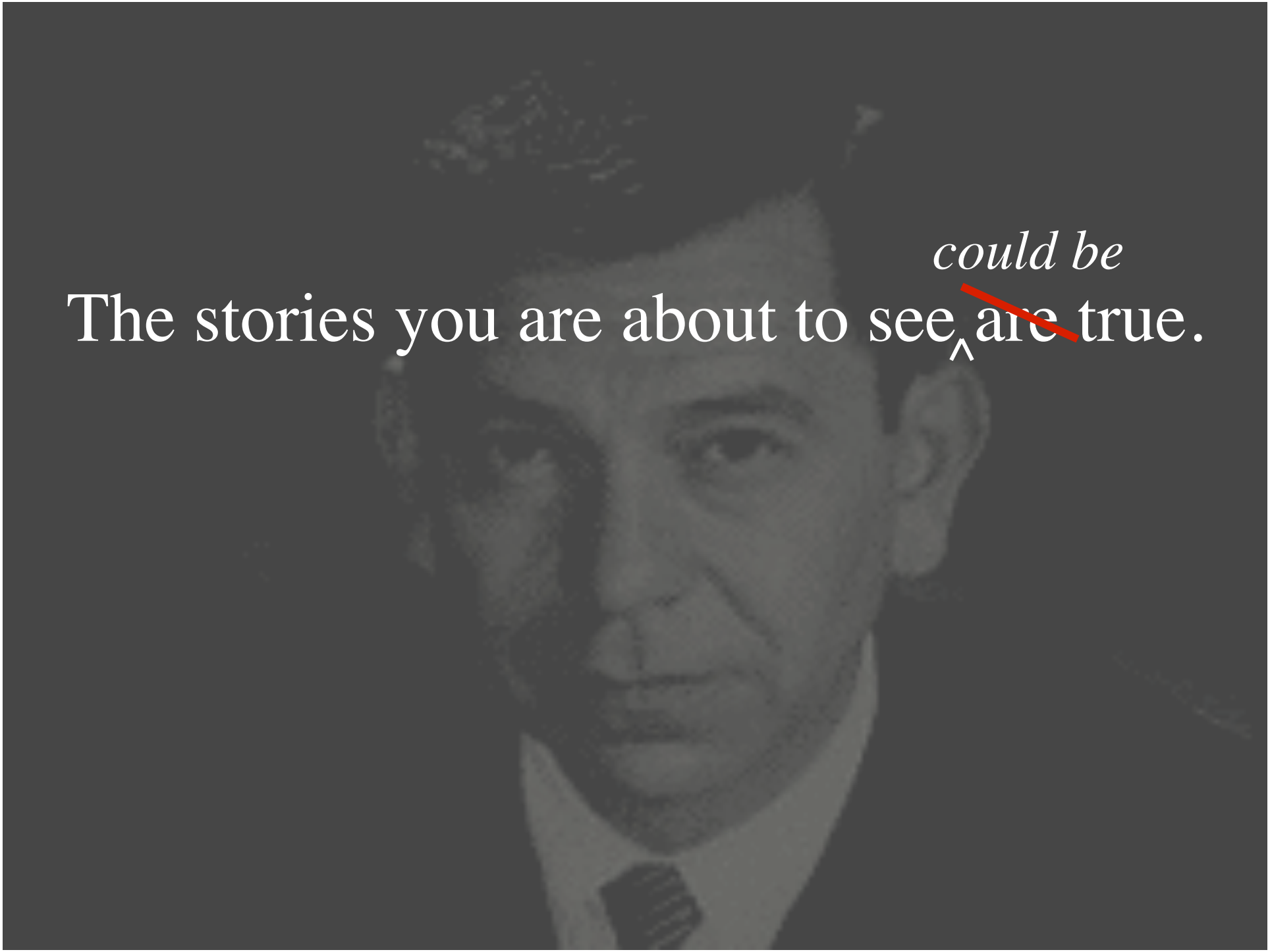
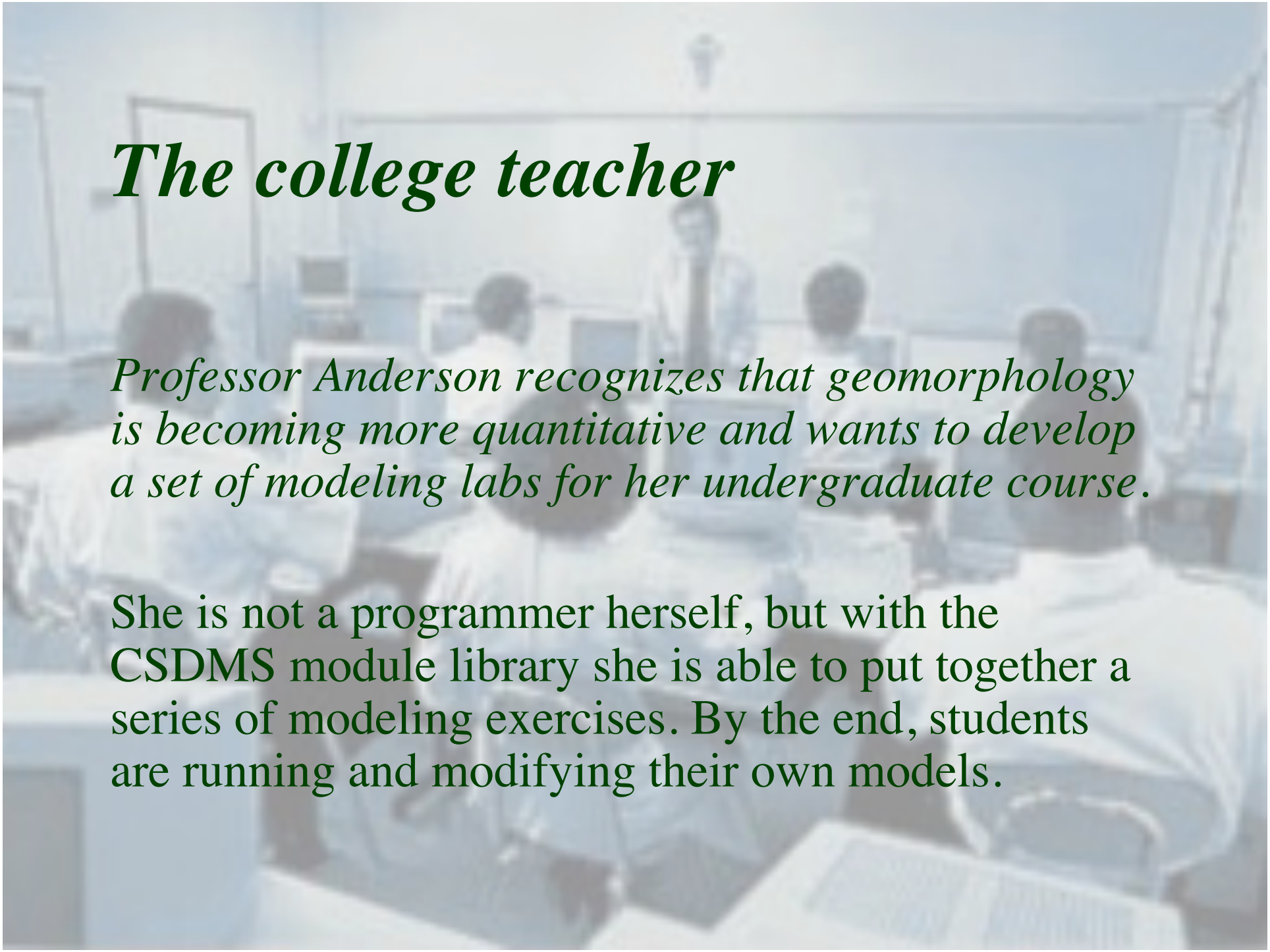

could be
The stories you are about to see are true.

Defense planners

South China Sea suddenly becomes critical. A Navy team is convened to assess a seafloor environment where observations are few. Worries relate to mine detection and a recent request for ASW tactical information.

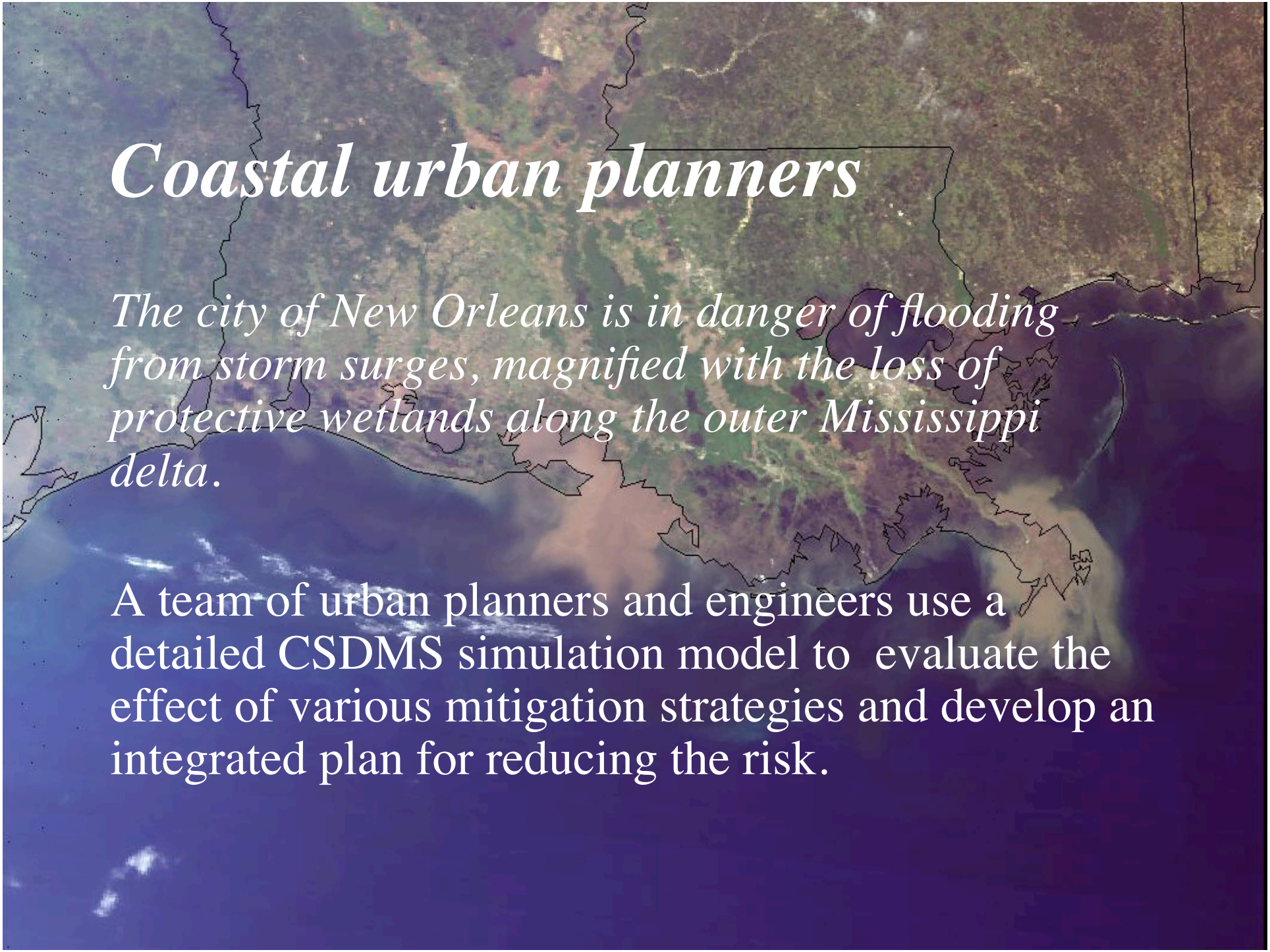
The team employs a fully assembled CSDMS simulator along with requisite time series of environmental forcing to generate detailed seafloor properties including stratigraphic predictions.



The college teacher

Professor Anderson recognizes that geomorphology is becoming more quantitative and wants to develop a set of modeling labs for her undergraduate course.

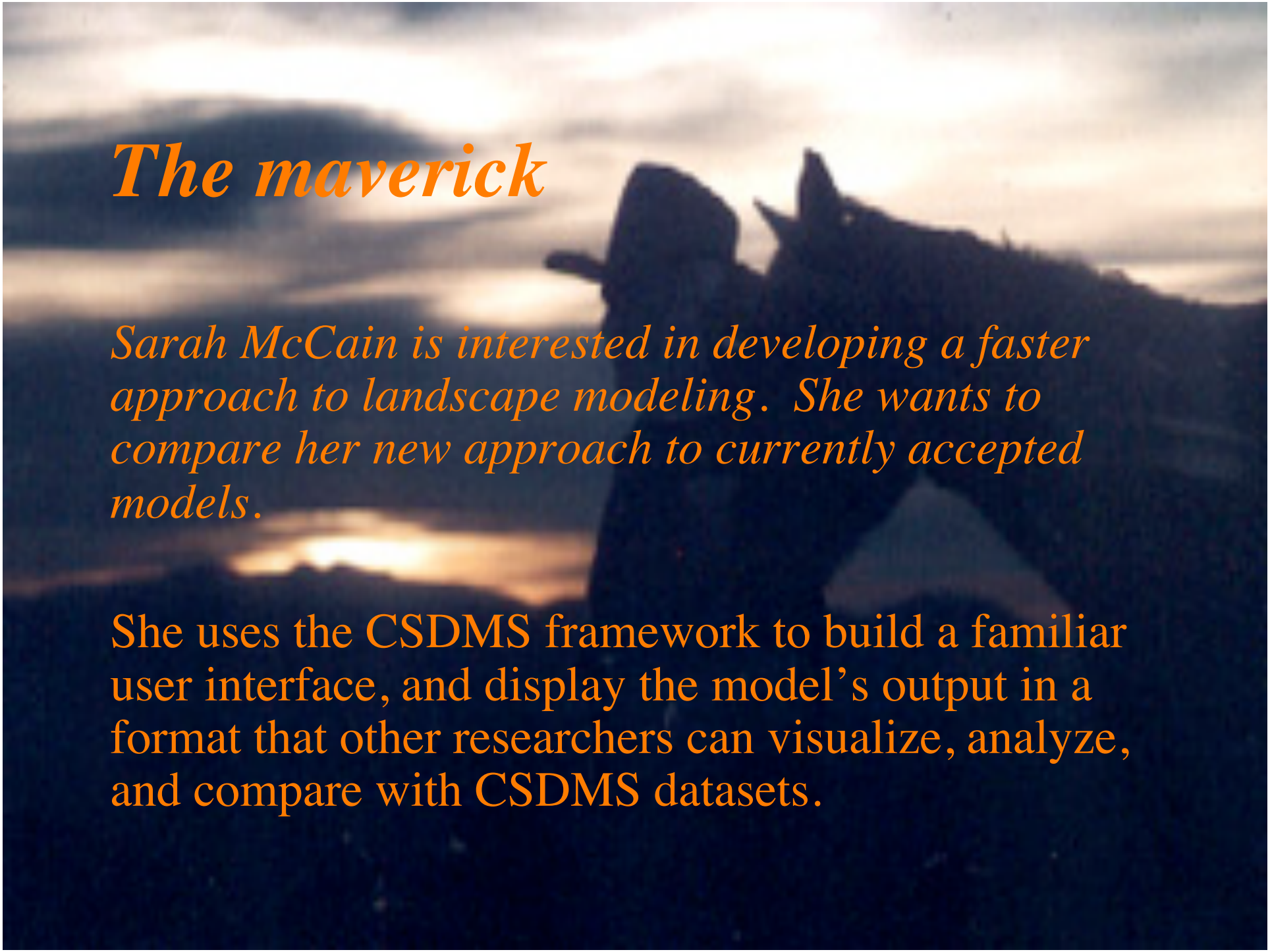
She is not a programmer herself, but with the CSDMS module library she is able to put together a series of modeling exercises. By the end, students are running and modifying their own models.



Coastal urban planners

The city of New Orleans is in danger of flooding from storm surges, magnified with the loss of protective wetlands along the outer Mississippi delta.

A team of urban planners and engineers use a detailed CSDMS simulation model to evaluate the effect of various mitigation strategies and develop an integrated plan for reducing the risk.



The maverick

Sarah McCain is interested in developing a faster approach to landscape modeling. She wants to compare her new approach to currently accepted models.

She uses the CSDMS framework to build a familiar user interface, and display the model's output in a format that other researchers can visualize, analyze, and compare with CSDMS datasets.

The field stratigrapher

Irina Overeem is doing a field stratigraphy project. She has some qualitative ideas about what her sequence represents and would like to refine them.

She begins with a relatively simple CSDMS model that lets her explore parameter space and find a parameter set that matches the overall geometry of her strata. These parameters form the basis for a more detailed study, using a more complex CSDMS simulation model, to understand aspects of the stratigraphy that the simpler model could not resolve.

Environmental forecasters

A citizens group of Washington state worry about possible effects of climate change on erosion and sediment load in the Olympics.

A team of geomorphologists, engineers, and ecologists uses a CSDMS landscape simulation model coupled to WRF, a climate/ weather model, to develop forecast scenarios.