Computational Photography Assignment #1

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“Deep Pursuit”

Details of the Picture

- A Caption:
  - “Deep Pursuit”

- Location/Time/Context (i.e. what is it?):
  - Cancun, Mexico. August 7, 2015. ~10am.
  - Diving amongst whalesharks as they migrate through Isla Mujeres, off the coast of the Yucatan Peninsula.

What was the goal?

- What were you trying to capture?
  - I wanted to capture the sheer magnitude of this “gentle giant.”

- Did you succeed?
  - Yes. By including a fellow diver swimming in the frame for comparison, the viewer can infer the shark’s gargantuan size.

- Did you do anything special?
  - No special effects. I just used a GoPro camera in its waterproof enclosure for taking the wide angle and FOV.

Discuss the shot

- Did you plan the shot? Tell us about it.
  - Yes, we spent the entire day searching for whalesharks. Whenever the sharks are feeding near the surface, their dorsal fins become visible from above. This visual cue gives us a short window to jump off the boat and chase after them... until they dive deep or outswim us.
  - It was difficult to get the right perspective as the “subjects” were constantly moving. Free diving and breath holding also presented their own challenges. Luck was definitely involved!
- How many pictures of the same scene did you take? Why did you choose to share this one?
  - About 50 over the course of the day.
  - I took photos from several different angles, but this one seemed the most majestic with a diver in active pursuit.
- Did you do any post-processing? (i.e. used some computer app to improve the picture?)
  - No, unfortunately. I am not very skilled (yet) with photo editing.

What else can be done?

- What else would you have done to make this picture better?
  - The image isn’t very clear. Better resolution and lighting would have helped. Perhaps an underwater flash strobe?
  - The framing could be improved; part of the whale is cut off on the right side of the image.
  - Using a faster shutter speed could improve the clarity of the moving subjects.

- Do you wish there was some computational photography process that you can use to make it better or worse?
  - Computational illumination to adjust for changes in ambient lighting for underwater conditions, at different depths.
  - Gimbal or some other component to move optics/sensor for improved image stabilization while swimming and diving against ocean current. Adjusted for motion in a liquid medium.

Any other details.

- Feel free to share other thoughts associated with this picture
  - Despite the difficulties of taking this picture in an underwater environment, I think the photograph came out nicely. I especially love the parallel between man and beast. Whenever I look at this picture, it immerses me back into the memory of diving next to this magnificently beautiful creature, creating a sort of overview effect in cognitive awareness.
  - The blurriness kind of adds to the overall mystique of the scene.