

Multiple Drone Media Production summary

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Multiple Drone Media Production

- Drone Cinematography
- Framing Shot Types
- UAV / Camera Motion Types
- Experimental media production 'Around Wannsee'
- Experimental media production evaluation

Drone Cinematography



- **Unmanned Aerial Vehicles (UAVs, or “drones”)** have made their way in the media and entertainment industry.
 - Movies
 - TV: sports, newsgathering, documentaries
 - Advertising.
- **Drones allow filmmakers to capture shots that were impossible, extremely difficult or costly to capture so far:**
 - Wide shots of remote or hard-to-reach landscapes
 - Follow-along close up views of sports or other action
 - Impressive fly-throughs, fly-bys and fly-overs.
- **Essentially drones provide a level of camera motion freedom that was so far available only in animation.**



Framing Shot Types

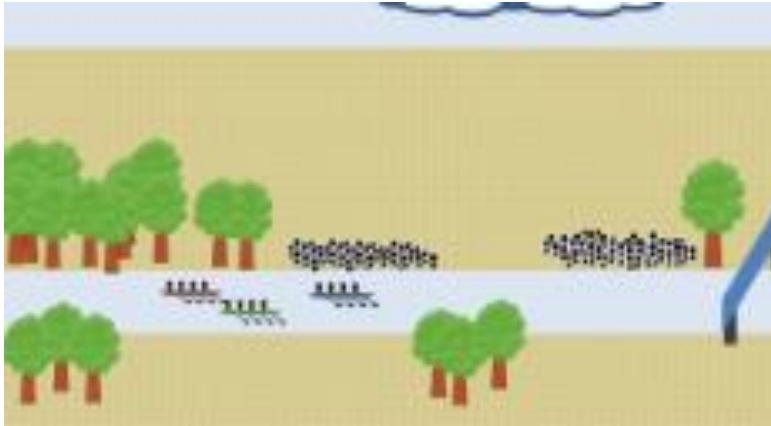


- **Framing Shot Types** are more or less those of traditional cinematography.
- Most are defined based on the **percentage** of the **video frame** width / height **covered by the single target** / subject.

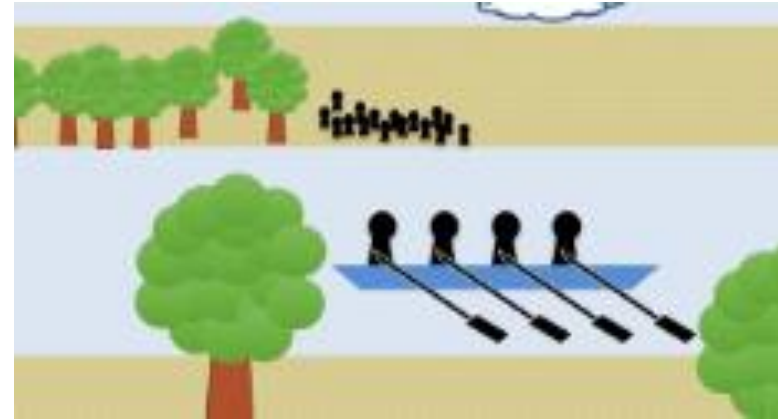
FRAMING SHOT TYPE	Percentage of frame width/height covered by target
Extreme Long Shot (ELS)	<5%
Very Long Shot (VLS)	5-20%
Long Shot (LS)	20-40%
Medium Shot (MS)	40-60%
Medium Close Up (MCU)	60-75%
Close Up (CU)	>75%

Framing Shot Types

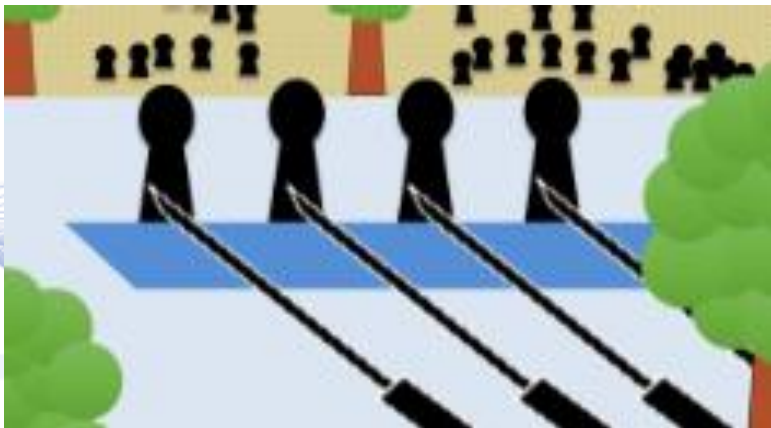
- Example UAV shot types when shooting boat targets from the side.



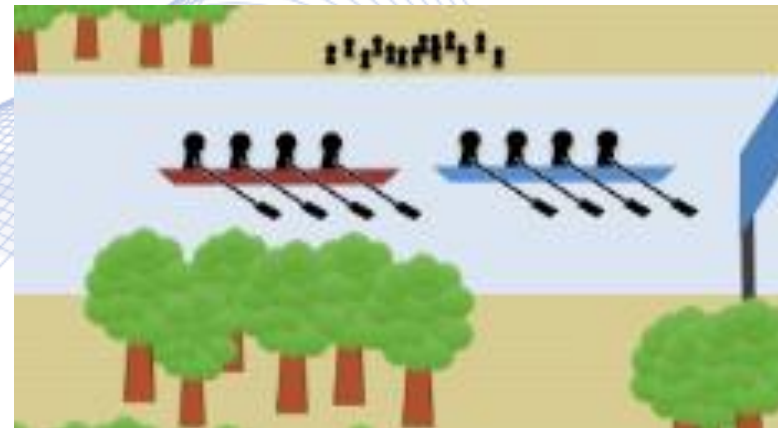
Extreme Long Shot



Long Shot



Medium Close Up



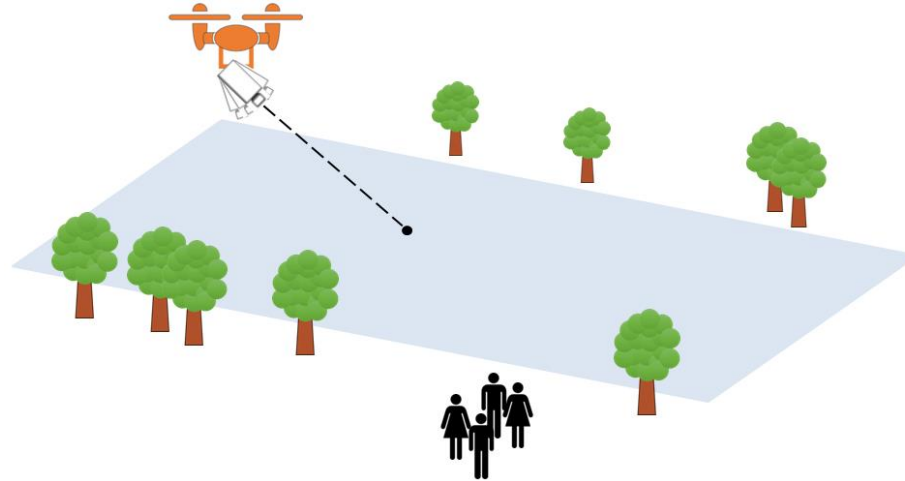
Two Shot

UAV / Camera Motion Types



- UAV / camera motion types can be considered as either “**scene-oriented**” or “**target-oriented**”.
- Four groups of UAV / camera motion types were defined.
 - **Static shots (6)**. No UAV motion, target may or may not be present:
 - Static Shot (SS)
 - Static Shot of Still Target (SSST)
 - Static Shot of Moving Target (SSMT)
 - Static Aerial Pan (SAP)
 - Static Aerial Tilt (SAT).

UAV / Camera Motion Types



Static Aerial Tilt (SAT)

- UAV hovers.
- Camera gimbal rotates slowly around the pitch axis in order to capture the scene context.



Source: Youtube: "5 Drone Moves Every Flier Should Know",
<https://www.youtube.com/watch?v=1hz-lkx4o6c>

Experimental media production 'Around Wannsee'



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Experimental media production 'Around Wannsee'



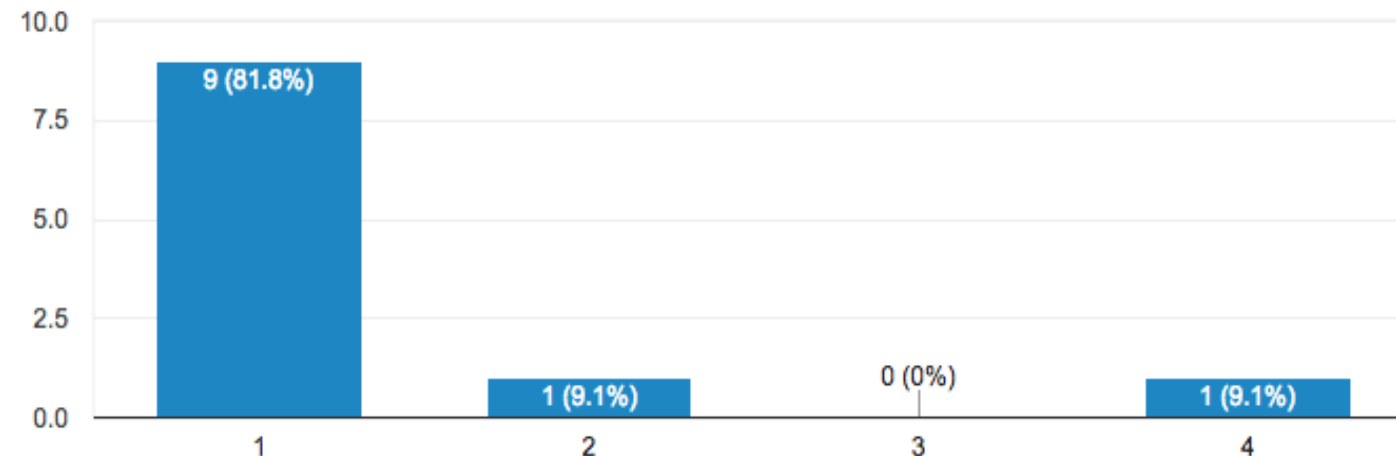
Experimental media production evaluation



- **Mission planner**

| The Mission planner was useful for preparing the production.

11 responses



Scale: 1 (fully agree) to 4 (totally disagree)

Bibliography

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- [NIK2000] N. Nikolaidis and I. Pitas, 3D Image Processing Algorithms, J. Wiley, 2000.
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Q & A

Thank you very much for your attention!

**More material in
<http://icarus.csd.auth.gr/cvml-web-lecture-series/>**

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