Sony PXW-X 70-Camerabasics

Assembling Camera & Set Up

1. XLR Handle (p.5)
2. Lens Hood (p.8)
3. Eyecup
4. Viewfinder Hood
5. Accessory Shoe (p.23)
6. Place protective UV Filter
7. Time & Area (In Menu)

LCD monitor/ Viewfinder

LCD Screen

- (p.20) adjust LCD settings
- viewer- touch screen
- settings SW & DISP SETTINGS   use
- Power LCD for bright places

Viewfinder

- Adjust to vision
- Brightness and colour or B&W
- Only functions when LCD is not in

Camera Specs.

- Full AVCHD video
- 1920 x 1080
- Three 1/4" sensors
- 2 XLR inputs
- 3 manual-control rings for Iris, Zom & Focus
- SD card slots
- WA 29.8 mm

Functions

□ Main power switch

□ Record & Standby button

Power

Battery

- (3.5 hours charge/ between 1 and 2 hours recordingtime)(p.114) (status battery on screen)
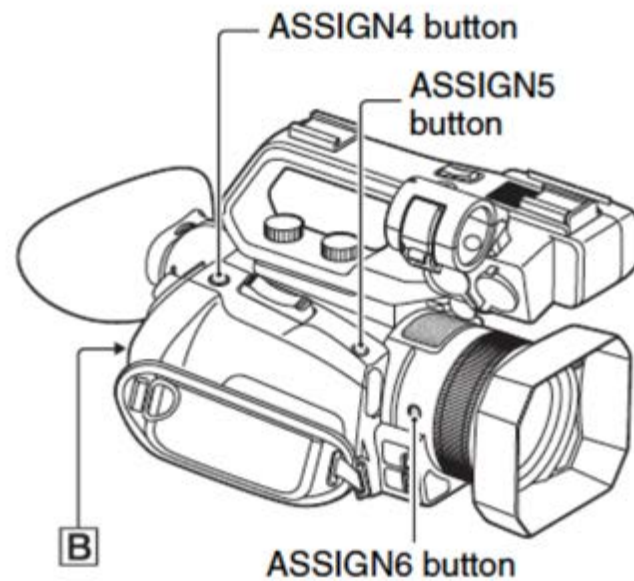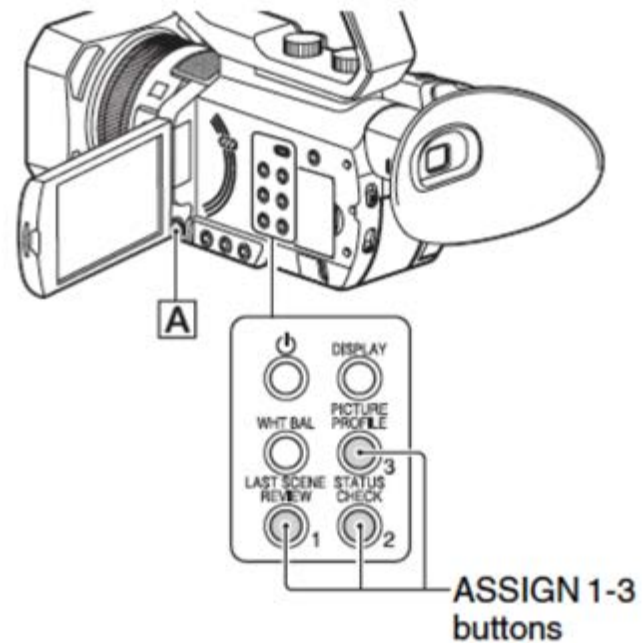
- Charge battery in camera !

Using **AC outlet**

- (p.) switch off before removing

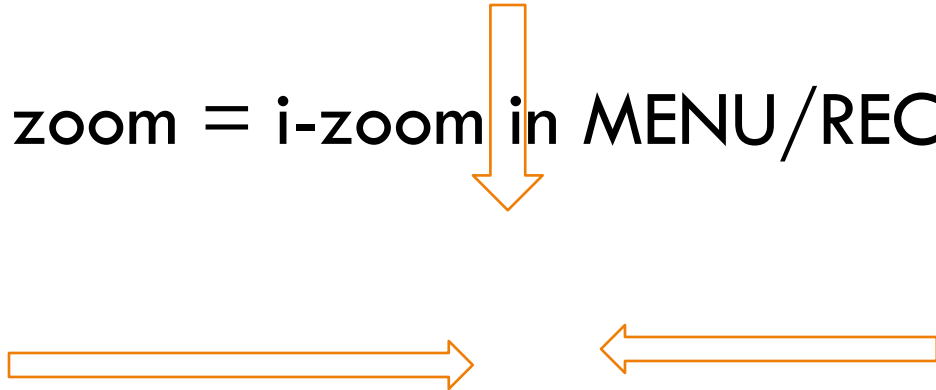# Connector pannels

- Headphone/HDMI/SDI

Assign Buttons

ASSIGN 1-3 buttons

ASSIGN4 button

ASSIGN5 button

ASSIGN6 button

1 Press the MENU button Ⓐ.

Lens

Lens

- Switch function Ring: Focus/Zoom

- Wide Angle = 30 mm Lens on DSLR

- 12 x Optical zoom Zoom speed adjustment
  Menu p.87

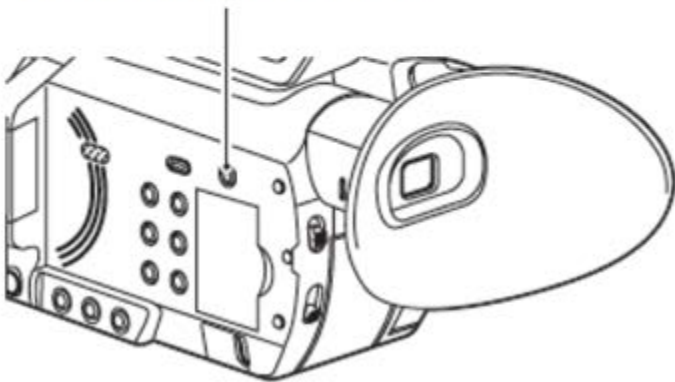- (Do not use Digital zoom = i-zoom in MENU/RECORD SET UP

Insert SD Card

## Selecting the memory card slot to be used for recording

Press the SLOT SELECT button to change which slot is selected for recording. You can confirm the selected slot on the screen.

SLOT SELECT button

Only if 2 cards are inserted

Open the cover, and insert the memory card with the notched edge in the direction as illustrated until it clicks into place.

Memory card slot A
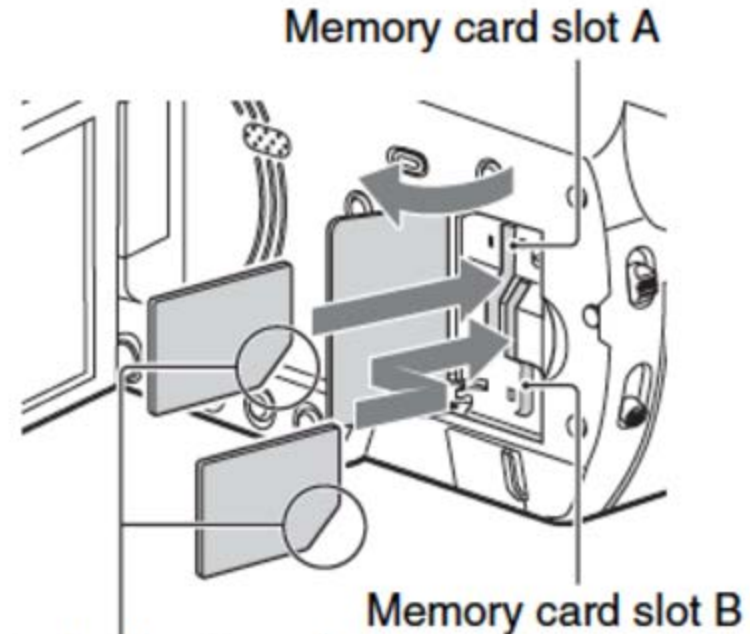
Memory card slot B

Note the direction of the notched corner.

- If you insert a memory card into the slot in the wrong direction, the memory card, the memory card slot, or image data may be damaged.
- Memory card slot A accepts either "Memory Stick PRO Duo" media or an SD card. Memory card slot B accepts an SD card only.

Continuous recording on 2 cards

Press MENU t Select (REC/OUT SET) t [REC SET] t [SIMUL/RELAY REC] t
[RELAY REC] with the up/down/left/right/EXEC button.

SD cards

- SDHC cards Class 10- 16 or 32 GB (page 16)

- <u>Recording-time</u>
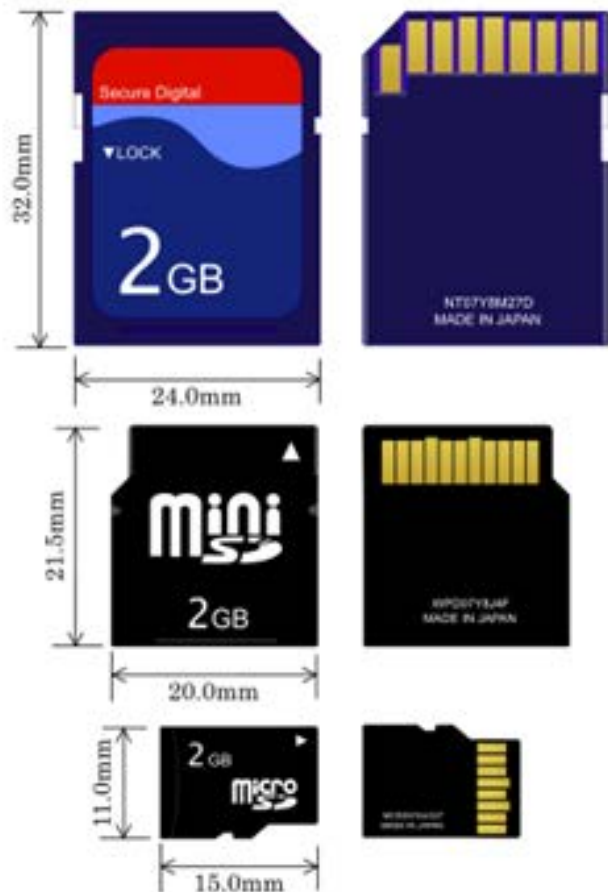- SD 32 Gb =
- about 140 min.

Capacity/Record Time

HIGH DEFINITION RECORDING TIME*
MPEG-4 AVCHD/H.264, 1920 (1440) x 1080

Recording Speed		HD High			HD Standard	HD Extended
Card Capacity		24 Mbps	17 Mbps	13 Mbps	9 Mbps	6 Mbps
	4GB⁺	20 min	30 min	40 min	1 hr	1 hr 30 min
	8GB⁺	40 min	1 hr	1 hr 20 min	2 hr	3 hr
	16GB⁺	1 hr 20 min	2 hr	2 hr 40 min	4 hr	6 hr
	32GB⁺	2 hr 40 min	4 hr	5 hr 20 min	8 hr	12 hr

SD Card Sizes

32.0mm / 24.0mm		**Standard Size SD**
21.5mm / 20.0mm		**miniSD**
11.0mm / 15.0mm		**microSD**

SD Card Speed Class

② Class 2 = 2 MB/s

④ Class 4 = 4 MB/s

⑥ Class 6 = 6 MB/s

⑩ Class 10 = 10 MB/s

U1 Ultra-High Speed

SD Standard
upto 2GB
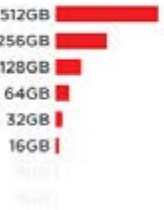
High Capacity
4GB to 32GB

Extended Capacity
32GB to 2TB

	Occasional	Everyday	Enthusiast	Professional	
	Standard	SanDisk Ultra*	SanDisk Extreme*	SanDisk Extreme PRO*	SanDisk Extreme PRO*
Summary	Quality and reliability for casual use	Twice as fast[2] for perfect shots and Full HD[1] video	Extreme speeds for burst shooting, fast transfer, and 4K UHD[1]	The professionals' choice for high-speed burst mode shooting and 4K UHD[1] video	The world's fastest SDHC/SDXC card. Ideal for professional photographers for burst mode shooting, 4K UHD[1] video and post-production efficiency

USAGE

Device	Point-and-shoot cameras	Higher megapixel point-and-shoot cameras	Digital SLRs, Interchangeable Lens Cameras, Compact System Cameras	Digital SLRs, Interchangeable Lens Cameras, Compact System Cameras	Digital SLRs, Interchangeable Lens Cameras, Compact System Cameras
Compatibility	SDHC™ / SDXC™	SDHC™ / SDXC™, UHS-I	SDHC™ / SDXC™, UHS-I	SDHC™ / SDXC™, UHS-I	SDHC™ / SDXC™, UHS-I / UHS-II

PERFORMANCE

Video Quality[1]	HD ready	FULL HD VIDEO	FULL HD VIDEO / 4K UHD	FULL HD VIDEO / 4K UHD	FULL HD VIDEO / 4K UHD
Burst Mode	✕	✓	✓	✓	✓
Class	CLASS 4	CLASS 10	CLASS 10, UHS Speed Class 3, V30	CLASS 10, UHS Speed Class 3, V30	CLASS 10, UHS Speed Class 3
Card Performance[3]	Standard	80 MB/s* 533X READ/WRITE SPEED LOWER	90 MB/s* 600X READ SPEED UP TO 80MB/s WRITE SPEED (256, 128) / 90 MB/s* 600X READ SPEED UP TO 40MB/s WRITE SPEED (64, 32, 16) GB	95 MB/s* 633X READ SPEED UP TO 90MB/s WRITE SPEED	300 MB/s* 2000X READ SPEED UP TO 260MB/s WRITE SPEED

Available Capacities

Max ▲ ... ▼ Min					
	64GB	128GB	256GB	512GB	128GB
	32GB	64GB	128GB	256GB	64GB
	16GB	32GB	64GB	128GB	32GB
	8GB	16GB	32GB	64GB	
	4GB		16GB	32GB	
				16GB	

1GB=1,000,000,000 bytes. Actual user storage less.

2 SD cards

- Format cards in camera
- FORMAT CARD (erases all-counting starts anew)
- 2 Slots different settings possible
  - Back up or extension/
  - Video or Stills

Data

- 2 x <u>SD card</u> Class 10: 16 or 32 GB.   Format/Lock the card after recording. (Back up or count up use)

- Use External Harddisk to upload files
  - Format for compatibility with Mac & PC, use: <u>exFAT</u>
  - or install <u>Paragon</u> on your Mac.

- Connect Camera to Monitor/Laptop via HDMI/USB2/Firewire

CAMERA BASIC SETTINGS

RECORD SETUP

RECORD SETUP	
Rec. Format	PS 1080/50p
2 Slots Function	OFF
Time Code Generator TCG	Rec Run
i. Zoom	OFF
Hybrid I.O.S	ON
MIC Setup	2CH

Record Setup/Record Format

- 1080/50p

- Progressive scan (not interlaced) shows sharper image (no 'tail' when subjects or camera move)

- Stills from video have better quality

Recording format	Frame rate	Recording method
[PS 1080/60p]	60p	AVCHD Progressive
[PH 1080/60i]	60i	AVCHD
[PH 1080/30p][1]	30p	
[PH 1080/24p][2]	24p	
[HA 1080/60i], [HE 1080/60i], [SA 480/60i][3]	60i	

Camera basic Menu Video-Settings

- Full HD 16:9 (Automatic when progressive scan is chosen)

  See List with Settings

Switches

Manual Focus, Iris, Gain & Shuttersp. MENU

Functions

- O.I.S. = Stabiliser ON
(Also RECORD SETUP-HYBRID Optical.Image.Stabiliser.-ON) (p. 37)

- Marker = Exposure levels luminosity in Centre
- Zebra (p.62)

- Quick Start button (p. 61)= saves battery in Stand by mode

Recording Indications

Recording indications

Example: AG-AC90PJ

HANDLING THE CAMERA

Handheld camera

Handling the Camera

- Position hand so all functions can be reached

- Adjust handbelt

- Practice with holding the camera untill you feel comfortable with it and you can keep the camera steady

- Train it like any other instrument (daily)

Supporting the Camera

THE
Knee Bend

THE
Elbow Plant

THE
T-Rex

THE
Taut Strap
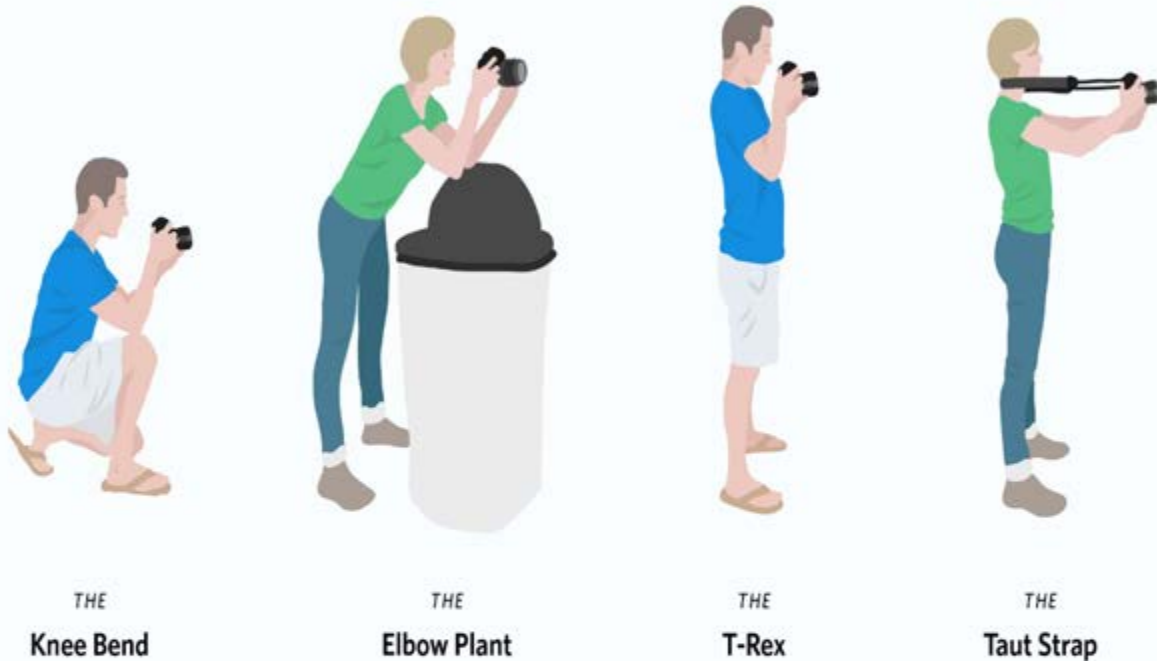
Stabiliser & Tripod

CHECKLIST 1: CAMERA (the night before)

- ☐ Is the lens clean?
- ☐ Are all the camera batteries powered?
- ☐ Do you have spare batteries for microphone?
- ☐ Have you set the right time code?
- ☐ Are your SD cards empty (and previous files stored away safely ?)
- ☐ What do the lighting & weather conditions require ?
- ☐ Check all menu settings.
- ☐ Am I sure that I am recording in the right format ?

Readying the Camera

1. Switch to Camera-mode.

2. Adjust Sub-Zoom-speed (SW & DISP (last setting)

3. Insert SD card and assign slots (Photo & Video, set   )

4. Format SD card

5. Check/Adjust Ocular/ Viewfinder   (B & W or Color)

What not to do

- Examples Ildiko

Maintenance

- Clean the lens (UV Filter) with soft cloth, never rub, don't put any pressure. Remove sand with soft brush

- Charge batteries immediately after shooting, always return camera with charged batteries.

RECORDING WITH MANUAL SETTINGS

Recording with MANUAL **Settings**

- <u>Iris</u> (=exposure/aperture/diaphragm) (also determines depth of field)
Experiment with depth of field

- <u>Shutter Speed</u> usually on 1/50th –Enhance to use as ND Filter Touch LCD screen SHTSP

- <u>White Balance</u> (Color temperature)/Black Balance (may remain on automatic (Ach), but always check if color is right!)

- <u>Zoom</u> (Explore which lens you can still hold still)

- <u>Focus</u> (distance between subject and camera) = Focus on Tele and then readjust the lens to selected LENS)

Counter

■ Screen indications in the Recording Mode

TC 00:00:00:00	Counter display (➜ 51)
🔲 (White)	Media where the motion picture is recorded (➜ 29)
R 1h20m	Approximate remaining recordable time • When the remaining time is less than 1 minute, R 0h00m flashes red.
PH 1920	Recording format (➜ 89)
60i	Frame rate (➜ 89)

In Class Exercises T 3

In Class Exercises

1. With a <u>static camera</u>, either mounted on a tripod or supported in another way, make a Long Take of around **3 minutes** of an interaction that develops inside the frame; how does your first frame connect to the last (what is the logic behind starting and ending the recording) ? Explore how you want to engage and/or interact with your subjects in the shot. Before you make the shot, also think about the camera-position, angle of view, inclusion and exclusion of space/persons/objects/background from the frame. Use manual settings.

2. With <u>a moving camera</u>, make a Long Take of **around 3 minutes** by following an activity or constructing a narrative in space through moving the camera, where both your subject and/or you as camera move around. Be sure to change frames in the course of recording and try to convey what the filmed person is doing and what it is you want to show about that, through your camera movements, camera positions, angles and frames. Use Manual Settings and the image stabilisor.

3. Make a <u>'poetic' or 'analytical' scene</u> that conveys a theme, a feeling about a certain course of events or an atmosphere of a place, or that reveals a sense of humor, critique or love you have for a certain situation. You may use 10 separate shots. **Maximum 2 Minutes**. Use Manual Settings and the image stabilisor.

Tutorial 3: Camera Exercise

Camera handling in field setting:

- ☐ Synchronization and coordination of interaction AND recording

- ☐ The recording is always the result of **COMPROMISES**

For recording

- ☐ - research driven choices (when, where and what to film)

- ☐ - technical choices (camera settings, image and sound quality)

- ☐ - aesthetic choices (framing, special effects)

- ☐ Good to know how can you make the best out of your image within the given circumstances:

- ☐ How to switch between MNL and AUTO functions:

RECORDINGTIPS

IMPORTANT RECORDING TIPS

- • Remember the 'Rule of Thirds' and always try to frame your shots with this in mind.

- Make sure your subjects have adequate 'head room' at the top of frame.

- • Think about location. Not only does it need to be well lit, but it's also helpful if location informs the narrative.

- • Try, where possible, to avoid mixing natural and tungsten (artificial) light.

RECORDING TIPS 2

- □ • Make sure you use a variety of shot sizes, as it will make your video much easier to edit.

- □ • Be wary of excessive camera movement, as it can be a problem in the edit.

- □ • Hold shots both before and at the end of tilts and pans.

- □ • Try to avoid using the zoom: often it looks unprofessional and can create problems when it comes to editing. If you are going to use the zoom, try to avoid using it during important action.

RECORDING TIPS 3

- • Shoot in sequences/Scenes. Think carefully as to how the footage will look in the edit (using a storyboard if this helps) and make sure your shots cover all the action.

- • Don't be afraid of taking time to get a shot right – even if this sometimes means doing it again.

- • Avoid using the automatic functions on the camera, unless you really, really have to.

ASSIGNMENT RD-T3

Field Study Assignment RD-T3

FIELD STUDY ASSIGNMENT

 The assignments below should be performed through editing in the camera, except Assignment RD-T3 Part 4 . Therefore the recording should reflect the logic that connects the shots and the mode of engagement that you want to enable the viewer to experience in relation with the persons in the film. What style of recording and what kinds of transitions between shots do you envision for your own project ? Experiment with a possible approach when making the assignments described below.

Record the assignments with the camera you intend to take with you to the field and make use of manual settings (see Module RD-T3-Module A.) In the P2P reflection-space discuss the anthropological, the ethnographic, the affective and the ethical intention behind your cinematographic approach. How does this style of filming express your relation with to your subject(s) ?

Field Study Assignments Part 1-4

Part 1 **– Process – continuity editing Observational Cinema style**– Make a 3-5 minutes sequence of a process that the person you film is engaged in; this should be an activity that consists of one unity of time place and activity, which could be as simple as doing the dishes, making coffee, gardening or a meditation session etc. Record in 'observational cinema style', without obviously engaging with the person(s) you film. Show beginning, development & end, and a transition to a next activity/pause. Apply 'continuity-editing' and time-compression in a way that we still experience a sense of the flow of the activity. Prevent 'jumpcuts' and try to represent a sense of a rhythm and duration that cognitively reflects a comparable sense of time. Think beforehand about what aspects you want to convey of the activity that is performed by that person(s) and how you may achieve that. Compress time by at least leaving out 2/3 of the real time the activity took. The real life activity should thus last at least 10 minutes (for basic principles of continuity editing view RD-T3 Module C & see examples under Tutorial RD-T3: Process (continuity)).

Part 2 **– Process – Participatory Cinema Style, without continuity editing**- Make a 3-5 minutes sequence of a process that you encounter in your field; an activity that consists of one unity of time place and activity, which could be as simple as doing the dishes, making coffee, gardening or a meditation session etc. Record in a way that we experience your relation with the filmed person and a sense of collaboration and/or communication. Show what you as a filmmaker in collaboration with the person that you filmed, found important to convey, using different transitions between shots and 'jumpcuts' and shifts in time that still allow a viewer to understand the scene. (For examples of a Process depicted without continuity editing see examples under Tutorial RD-T3: Process (no-continuity editing))

Part 3 – **Portrait – Compose a portrait or 'scene' of max. 5 minutes, in observational, participatory, reflective or poetic style** in which you depict a person from your field study site, without only focusing on an interview or disturbing his or her daily life. Convey what you think is characteristic about him/her or of his/her role/position/status, also try to clearly reveal your relation with him/her. Do not make a process the focus of your portrait, but compose a portrait from different moments in time. Reflect on what motivated your approach and choice of moments/aspects in that person's life/work, and how your own position also becomes apparent in the portrait. (See examples under Tutorial RD-T3: Portrait)

Part 4 **– Poem, Argument & Experiment** – Make a an essayistic or poetic series of shots in which you use as point of reference: a concept; a theme, a feeling or an atmosphere that you want to convey through the composition of shots.(See examples under Tutorial RD-T3: Poem, Argument & Experiment)