WORK FLOW
Preproduction
&
Preparation

The animation of the photographs in Adobe After Effects, my animation programme of choice, required a significant amount of image preparation in Adobe Photoshop.

I was in Photoshop for several weeks before anything at all happened in After Effects... And then the processes in After Effects were equally laborious to set up. Even an image which features for only 5 seconds must go through both these processes, which, for some complex photographs, took over 16 hours each. Each stage was time consuming but essential.

What follows is a simplified account of each stage of the preparation processes.

PHOTOSHOP CC 2015

1 SCANNING

First I clean the photograph with a soft lint free cloth to remove physical artefacts and dust. I also periodically clean the scanner bed of dust. Both actions mean a few less artefacts to remove in Photoshop.

I use an Epsom Perfection V700 PHOTO dedicated scanner. I could have scanned multiple images at once, but preferred to scan one at a time with descriptive filenames to better facilitate the retrieval of archived files. I also stored the physical photographs in the same order as the digital files so that I could swiftly find the original physical artefact for real world examination if needed. Digital files were saved as TIFFs, a non-lossy format. Scans were made as large as feasible in terms of pixels to facilitate close-up camera zoom in After Effects.

If there is anything written on the back of the photograph I scan both sides so that the image does not become separated from any identifying information. Files are labelled with the same name but with suffix 1 and 2 so they sit next to one another on the hard drive archive. If I've learnt anything, it's that file management is crucial at all stages of this process!

2 RESTORATION

I import into Photoshop and label the primary level ORIGINAL. I then make a copy of this layer and label it TO FETTLE and work on this layer. This means I can check progress during the restoration process by switching between these layers. When restoration is complete I rename this layer FETTLED. This process expedited a slow and close-up examination of each photograph, and is when much of the thinking recorded in the *Transcription of the Cat Notebook* occurred. I learned about the boots the soldiers wore, and the arrangement of the hobnails on their soles. I noticed the folds and rucks in the studio backdrops of the photographers, and the rough floorboards underfoot which were at odds with garden backdrops, even at times the untidy bits of unswept litter on those bare floors... Working like this has made me a much more fussy photographer in studio shoots. Restoration is not as full as it might be for a photographic still, but sufficient for an image viewed for a few seconds in the context of motion.


Before and after.
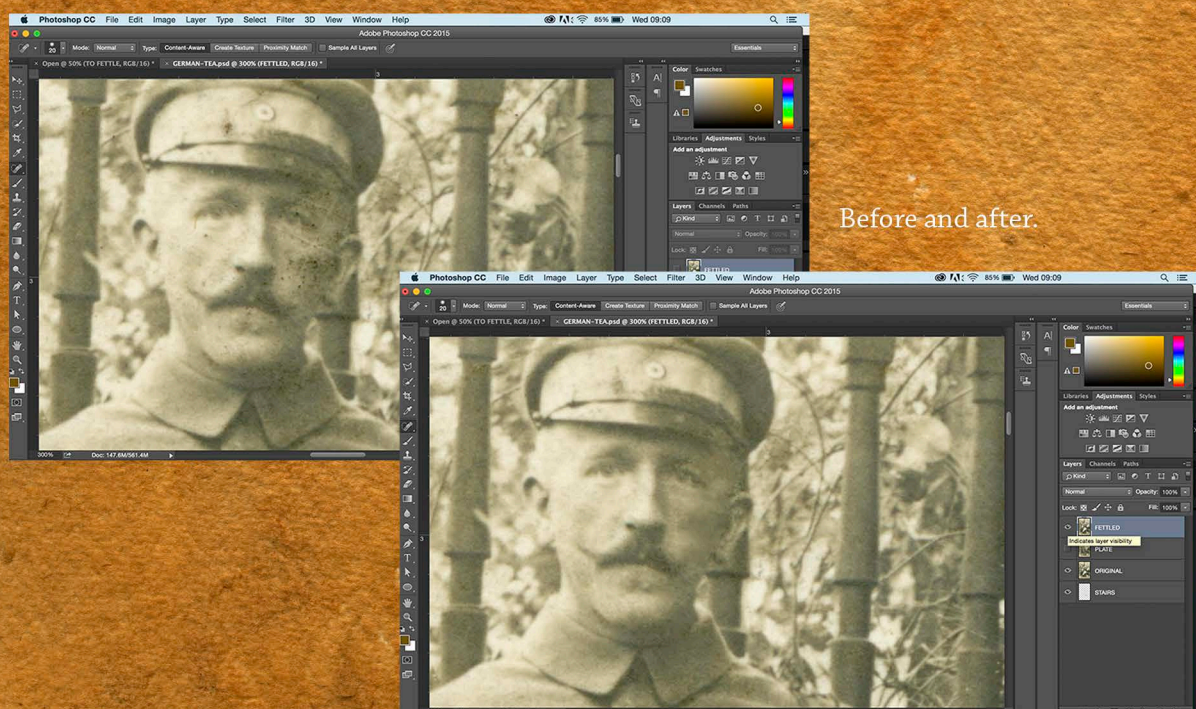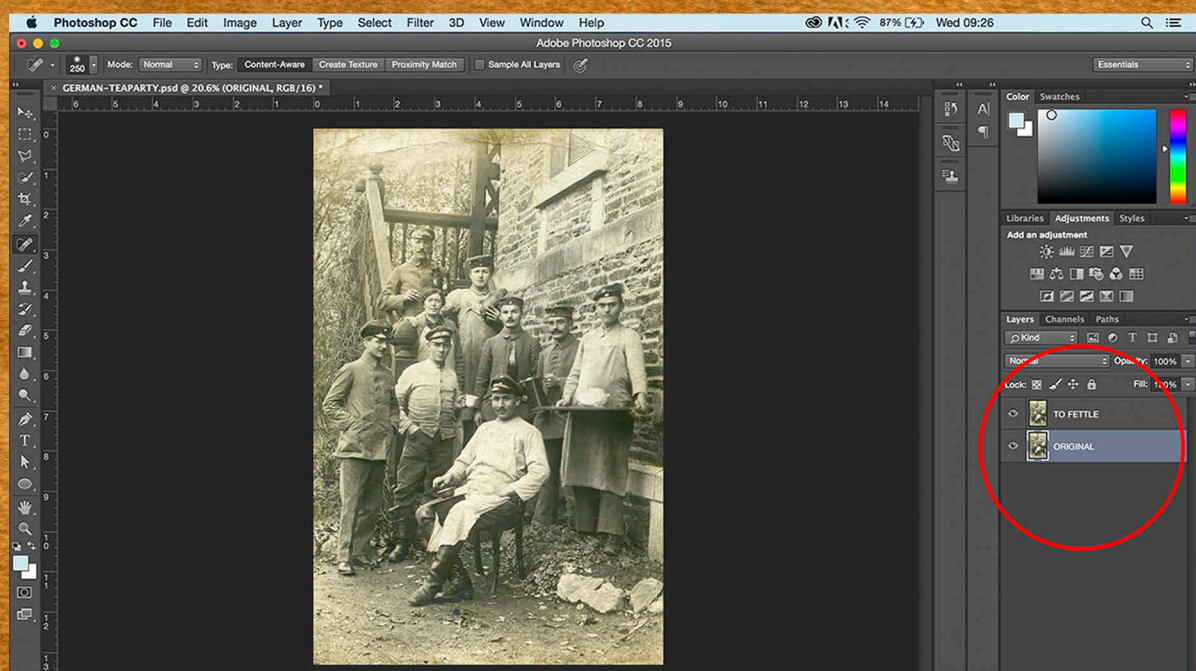
3 SELECTION

I work on making selections of the figure or figures in the portrait, using a combination of the Pen Tool; Quick Selection Tool; Quick Mask and Refine Edge. Photoshop struggles with the soft tones of the images so although the Quick Selection Tool can make a swift first attempt, the eye is then needed to interpret the soft tones of the image. Often this means looking in extreme close-up, with plenty of pulling back to read the whole image, to decide where the soft tones of the figure end and the backdrop's tones begin. This is a process that cannot be rushed.
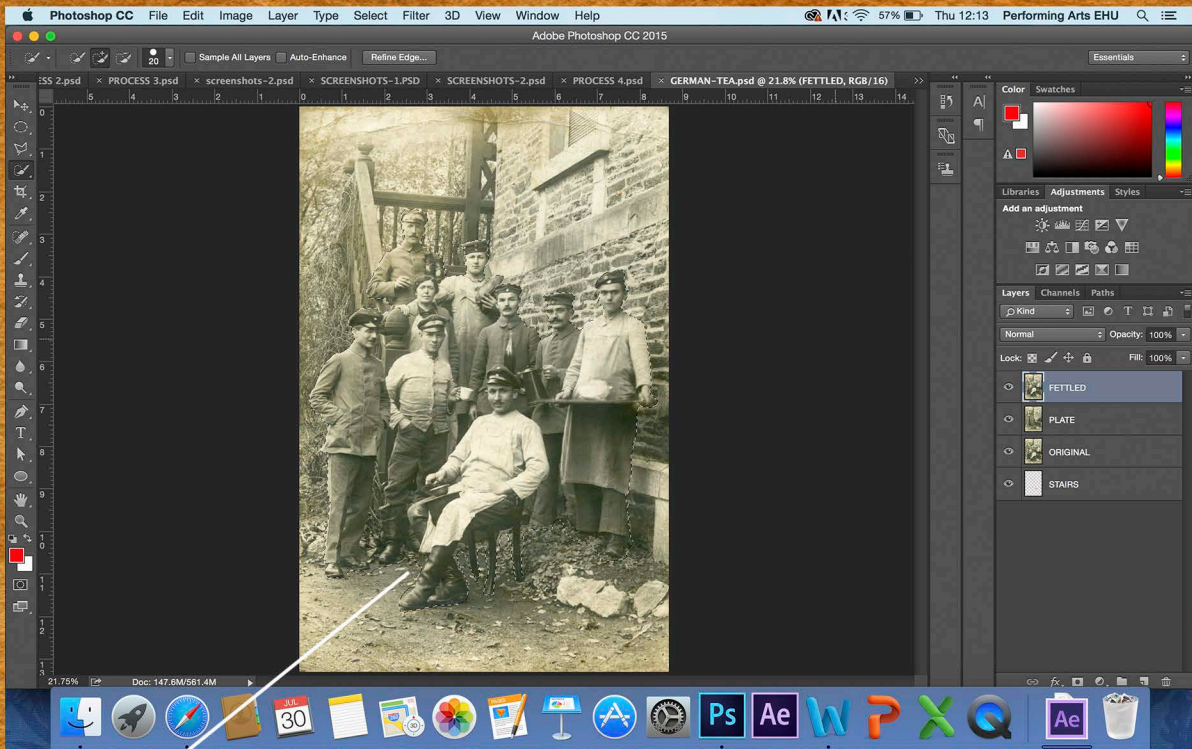
Marching Ants selection boundary   Quick Mask   Refine Edge
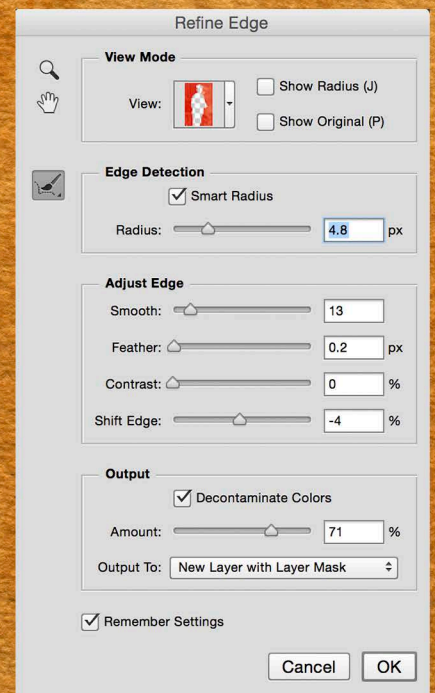
3 SELECTION & MASK WORK

Once the initial selection is complete, I convert the Marching Ants selection to a layer mask, which means further refinements to the selection can be made if needed using the Brush Tool onto the mask. After Effects reads Photoshop masks, so there is no need to make a cut out, although I often do to facilitate the puppet work. The mask separates whatever is selected from its original context.

I soften the edges of the Mask with the Blur Tool so that the figures don't become too sharp, but continue to reflect the soft focus of the original photograph.
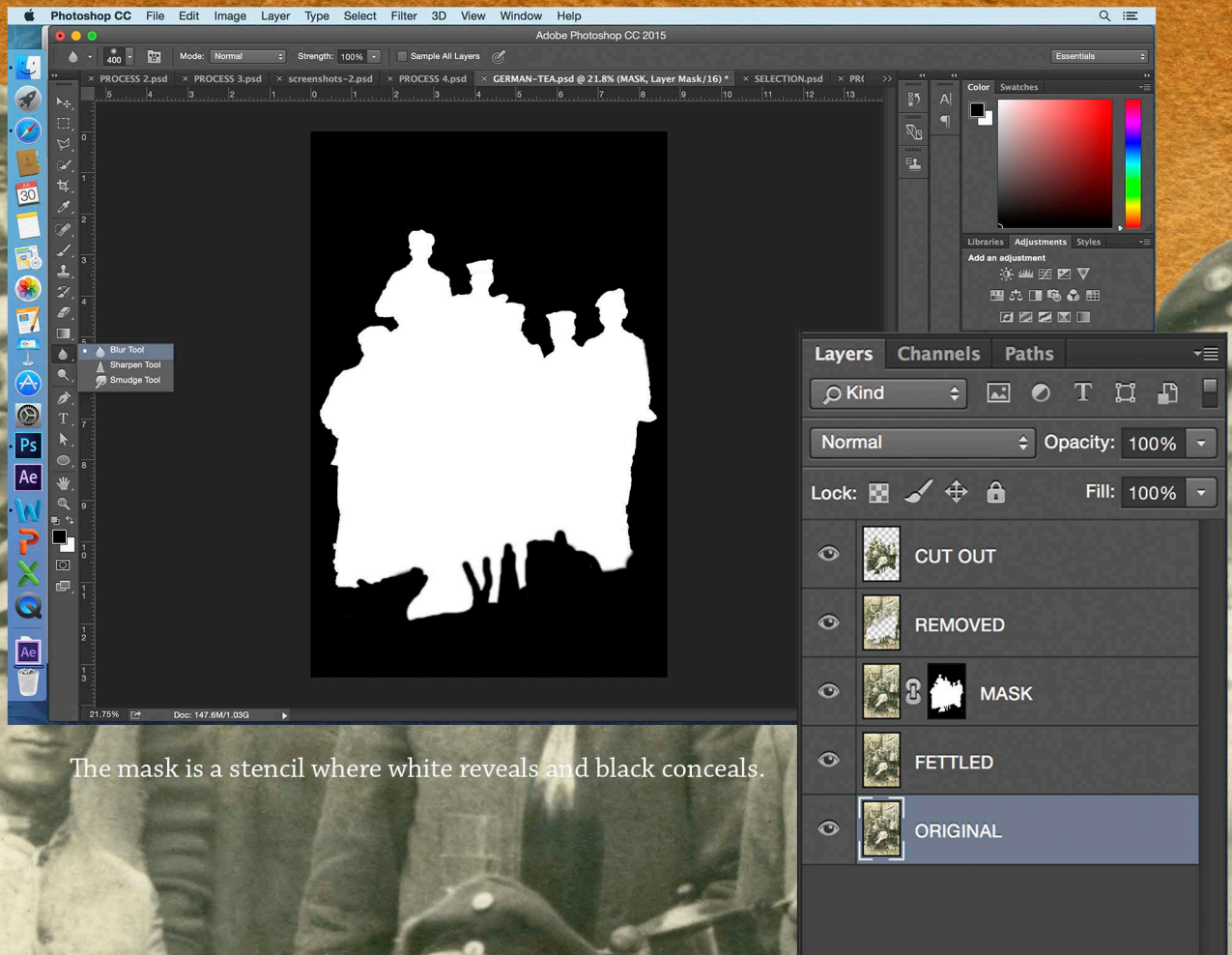
The mask is a stencil where white reveals and black conceals.

5 MAKING THE PLATE – ERASING THE SUBJECT

The Plate is a version of the image without its subject figure - the background - and is vital for 3D parallax animation of the photographs. So when the selection process is complete, I remove the figure from a copy of the Fettled Layer, by activating the Selection and then erasing it from the Layer.

This is a ghostly process, and its symbolic significance always struck me quite profoundly as I worked, especially if, as quite often was the case, I was working late at night and listening to music.

I made QuickTime screen movies of this process because it was so powerful. Some of this footage features in the Presentation. I plan to use more of this footage in a 'The Making Of...' movie to accompany the film when it is exhibited on my website.

6 MAKING THE PLATE – PAINTING IN THE BACKGROUNDS

The details of the photographer's studio set or the landscape that would have been behind the figure must now be painted back onto the layer that will become the Plate. This involves detective work. The information given in the photograph must be assessed, and then the missing information must be reconstructed using the Clone Tool; Heal Tool; Content Aware Fill; the Patch Tool; the Brush Tool.

Sometimes there is enough information to reconstruct from what is already extant in the image, but sometimes, I have to make best guesses and draw and paint to construct backgrounds using the same tones as the original image onto a new layer. The Paint Tool is however flat and bland and this new painted area must be treated with the Add Noise filter, which itself must then be treated with Gaussian Blur to bring the texture of the added sections into harmony with those of the original photograph. This is where I've sometimes painted in flecks of surface damage to add to the illusion.
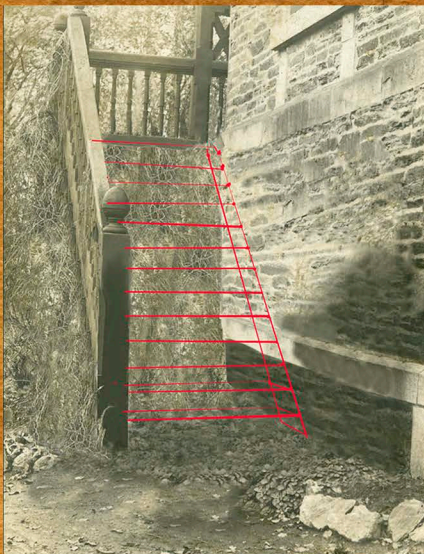
A cartoon or modello for the painted reconstruction of the stairs in the German Teaparty photograph.

Painted tones used are always selected from the photograph to facilitate effective integration into the original. In this image the newell post has already been reconstructed.

I had no information from the photograph as to the nature of the original stairs, so decided to construct them as plank steps which meant I could use the foliage information to the left of the image.

Shadows and textures add to the 'believability' of the image.

MAKING THE PLATE CONTINUED

Sometimes, I worked with the underlying layers switched on to make available more selectable paint tones. Reconstruction often occurred over several new layers, building up a picture intil all layers could be combined into one final plate. This often had a strange ghostly effect of watching people disappear into landscapes, pixel by pixel, reminding me of the ravaging effects of memory loss, neurone by neurone...

7 EXTENDING THE PLATE

To facilitate the 3D camera work in After Effects, the Plates must often be extended, so at this point, I make a rough estimate of how I might animate the photograph in After Effects and increase its Plate accordingly. This is now a process of imagining beyond the original frame of the photograph, and is where my sense of the photograph as an archive of historical information starts to niggle as I work: I am adding imaginative information, but like a historical novelist, I suppose, I am saying, "What if?..."

This has also involved reconstructing chairs, tables, flowers, various other objects, which normally I'd hardly notice in the background or setting of an image.

At this point I also examine the figures and estimate how I might animate them. Those who are smoking will be animated with smoke via a Particle Playground effect, and are duly noted.

8 PLANES

An assessment is now made of the distance planes of the photograph, and how many planes will animate in After Effects. I then begin to separate the photograph into separate layers for each of these planes. As with creating the Plate, what is behind each of these separated planes must be painted in. These parts of the image will be glimpsed only briefly during a camera move, but must be significantly different from what is directly in front to avoid repetition patterns as the planes move in parallax. One photograph can end up with several layers. These are now arranged and labelled to facilitate their import into After Effects.

9 PUPPET FRAGMENTS

I now look for which other aspects of an image might be animated. I've already referenced smoking cigars, cigarettes and pipes, but I also now separate figures into torso plates and puppet arms, so that limbs can be animated. Again, missing areas must be filled to create areas behind limbs that did not exist in the original photograph.
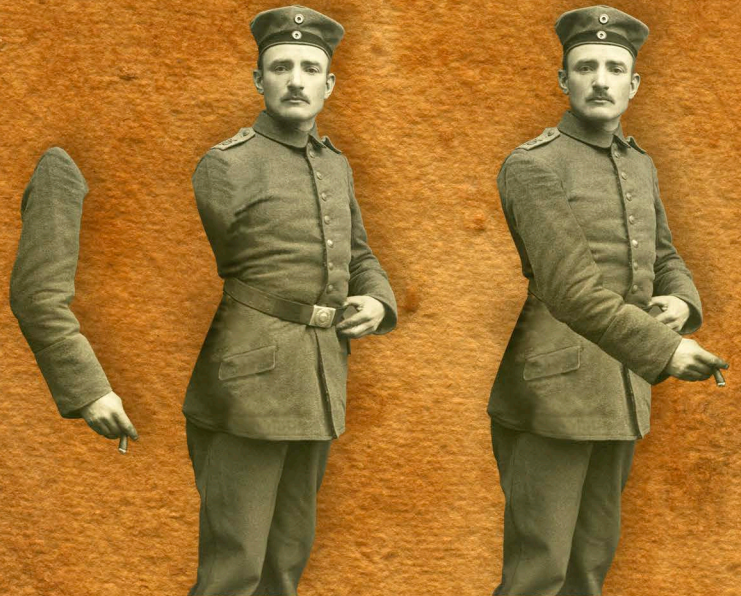
AFTER EFFECTS CC 2015

1 IMPORTING

Each file is imported as a Composition (as opposed to Footage), which means that its layers are retained. A working composition is then created by duplicating this original Composition. Not all layers are needed in every animation fragment, so an assessment is then made of what will be achieved in any particular fragment and which layers are therefore needed. Unneeded layers are deleted from the active composition to aid the computer caches.

I organise files in the Project Panel into appropriate folders. Finally the animation process can begin.

2 THE AFTER EFFECTS INTERFACE

After Effects is complex. Its interface can be daunting. I have relied on several books, and an online training site, Lynda.com, to navigate my way through its panels (please see the bibliography for details). Photoshop and After Effects speak to each other, but their interfaces and command strokes are slightly different. I am adept in Photoshop, but after Effects adds a time dimension which complicates matters. I feel as if I am however, eventually becoming bi-lingual.

Keeping calm is essential.
Backing up is essential.
Saving often (despite the automatic save function) is essential.
Knowing where to find help is essential (someone somewhere will have had the same problem. I am adept at scouring the forums for answers).
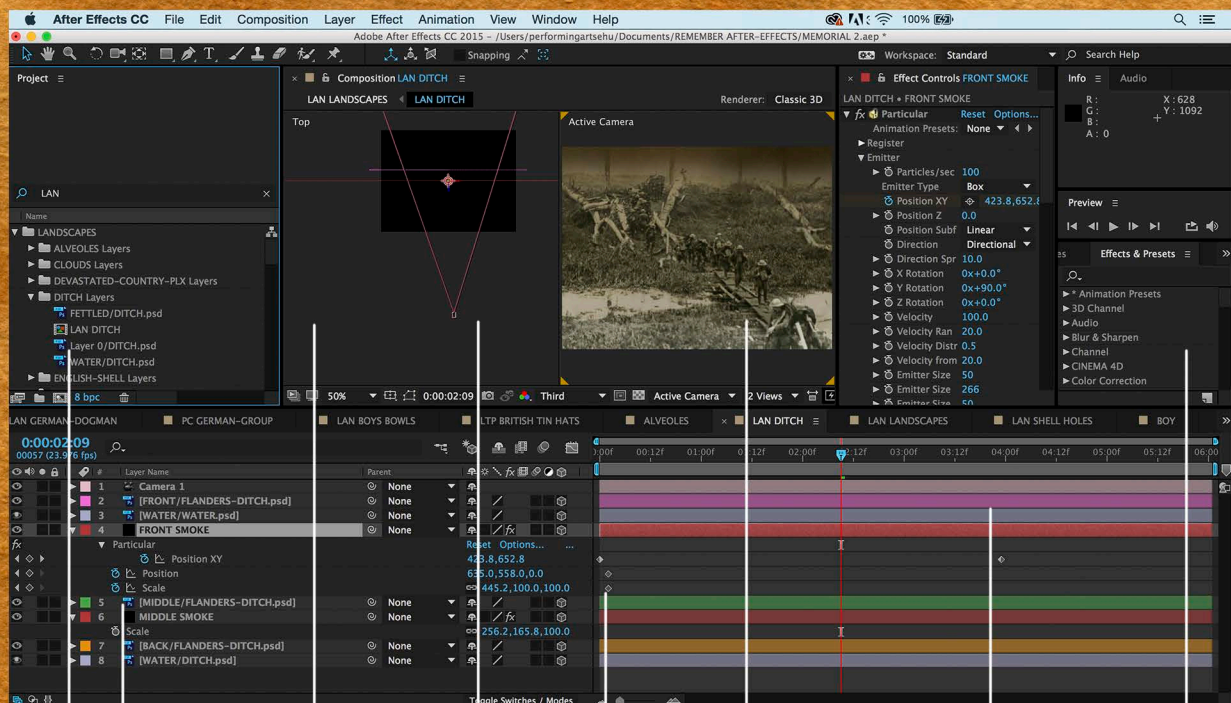
Project Panel

Layers

Above View of Camera Position

Composition Panel

Keyframes

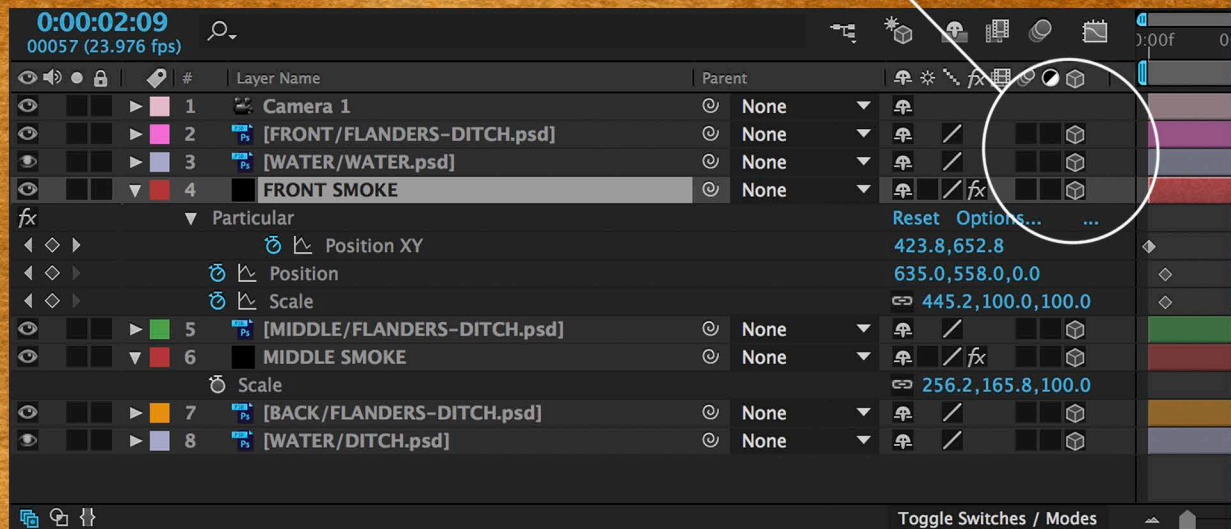Composition View

Current Time Indicator

Timeline Panel

Effects Panel

Effects Controls Panel

2 FROM TWO DIMENSIONS INTO THREE

The 3D switch in the Layers Panel must now be activated for each layer.

The position of each layer in relation to the other layers is then calculated and adjusted in three planes, X, Y and Z, where X is left to right; Y is up and down; and Z is backwards and forwards. Positioning further back in the Z plane reduces the visual size of a layer, so it must then be upscaled to fill the frame of the image as it did when it was in 2D space.


X parameter

Y parameter

Z parameter
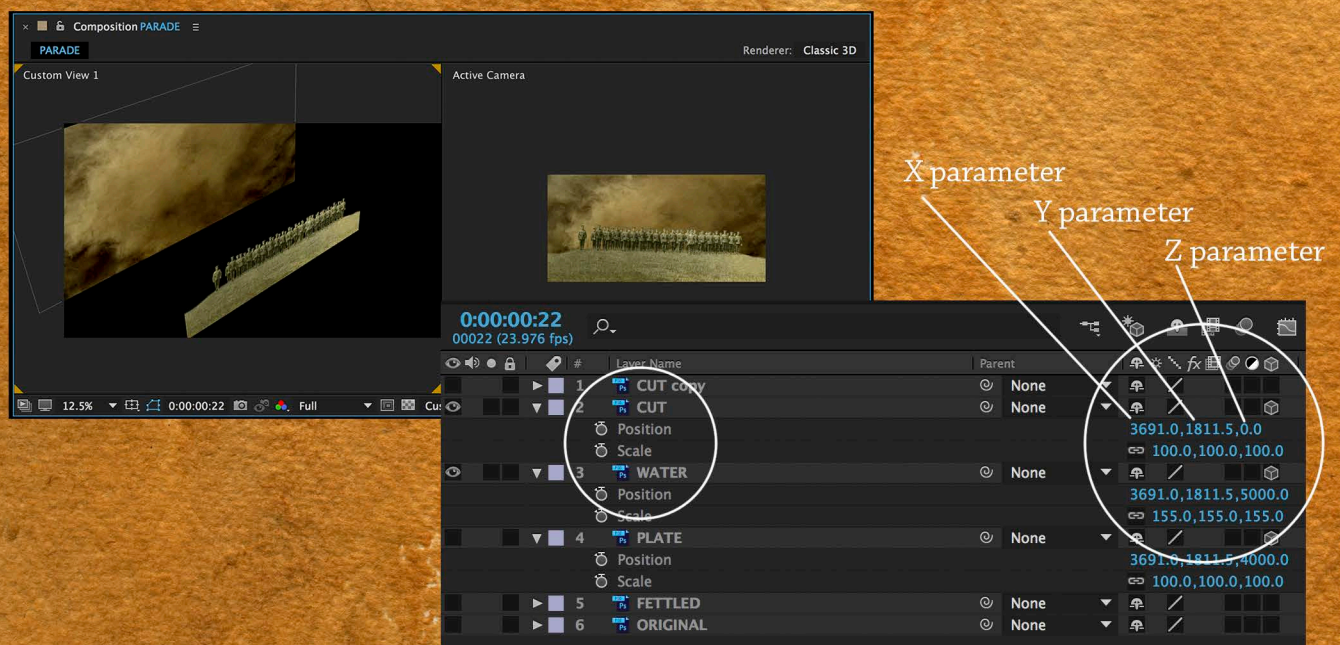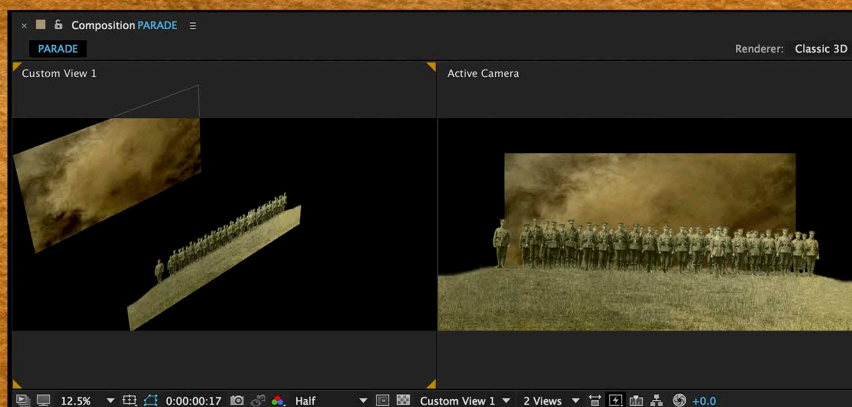
3 CAMERA

A two-node camera (which animates both its position and its point of interest) is then added. There are a myriad of choices here about, for example, what focal length its lens will have, what its aperture will be... I tend to use a 50mm lens and leave the other settings until the final finesse.

A camera path with pans and zooms is then plotted through the 3D space of the image, by key-framing the camera's Position and its Point of Interest on the Composition Time Line over the course of a number of seconds. This is where an extended plate is then essential because camera view can tilt and shift and see beyond the frame of the original photograph. A process of adjusting all keyframe parameters until a satisfactory camera path is achieved now ensues and can take a while.
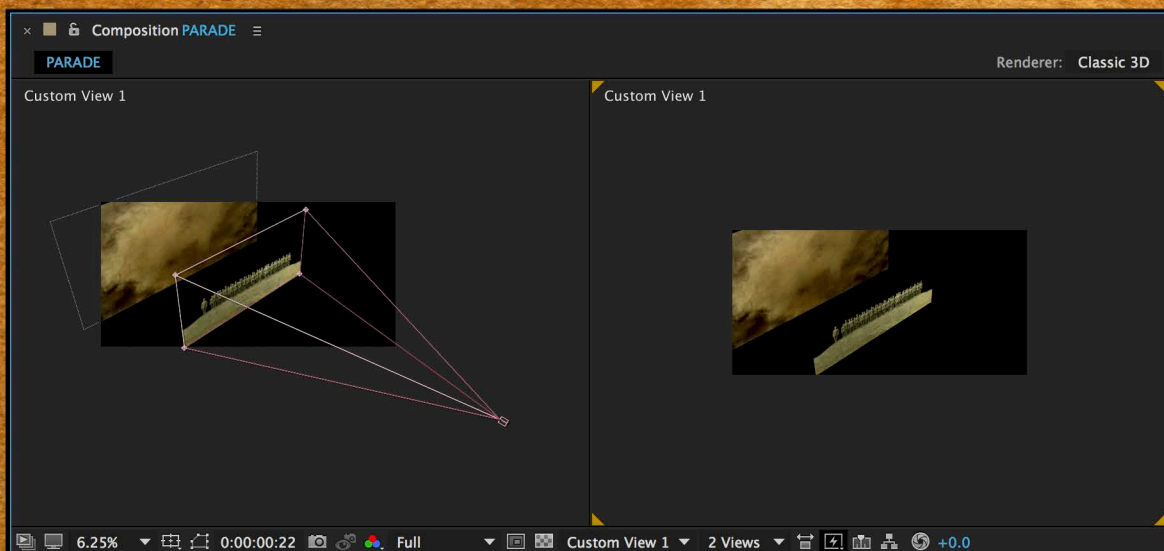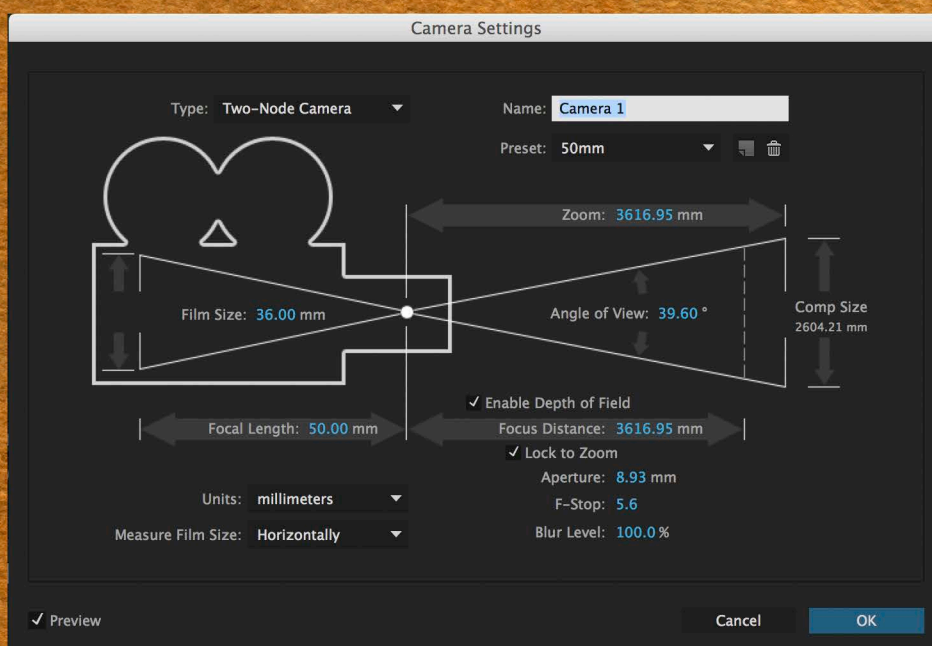
4 CAMERA PATHS

The path the camera travels down as time goes on is adjusted via the keyframes in the Timeline; by the numeric values in the Layers Panel, or by the blue, green or red Drag handles shown below. The process is delicate and involves minute adjustments until the desired view is achieved.

X parameter handle

Y parameter handle

Z parameter handle
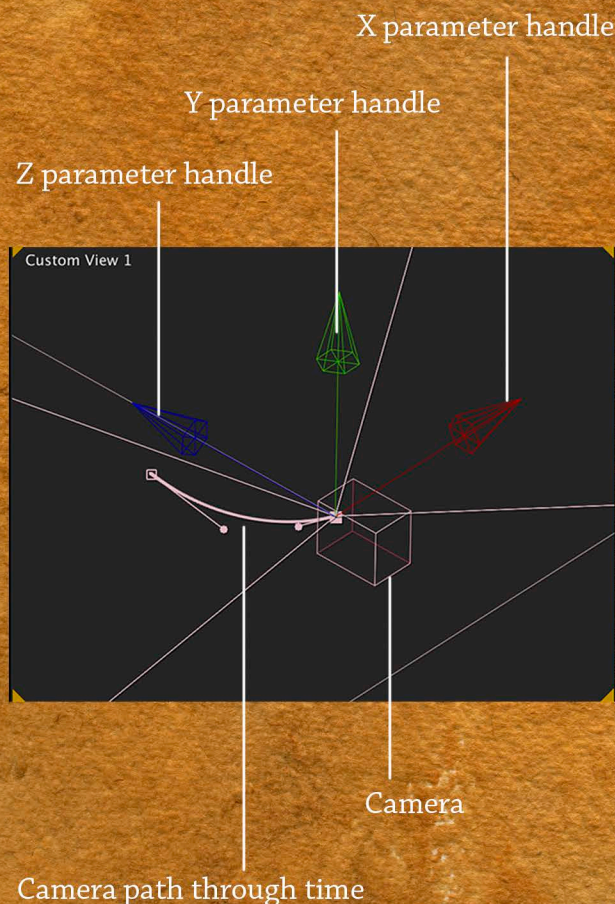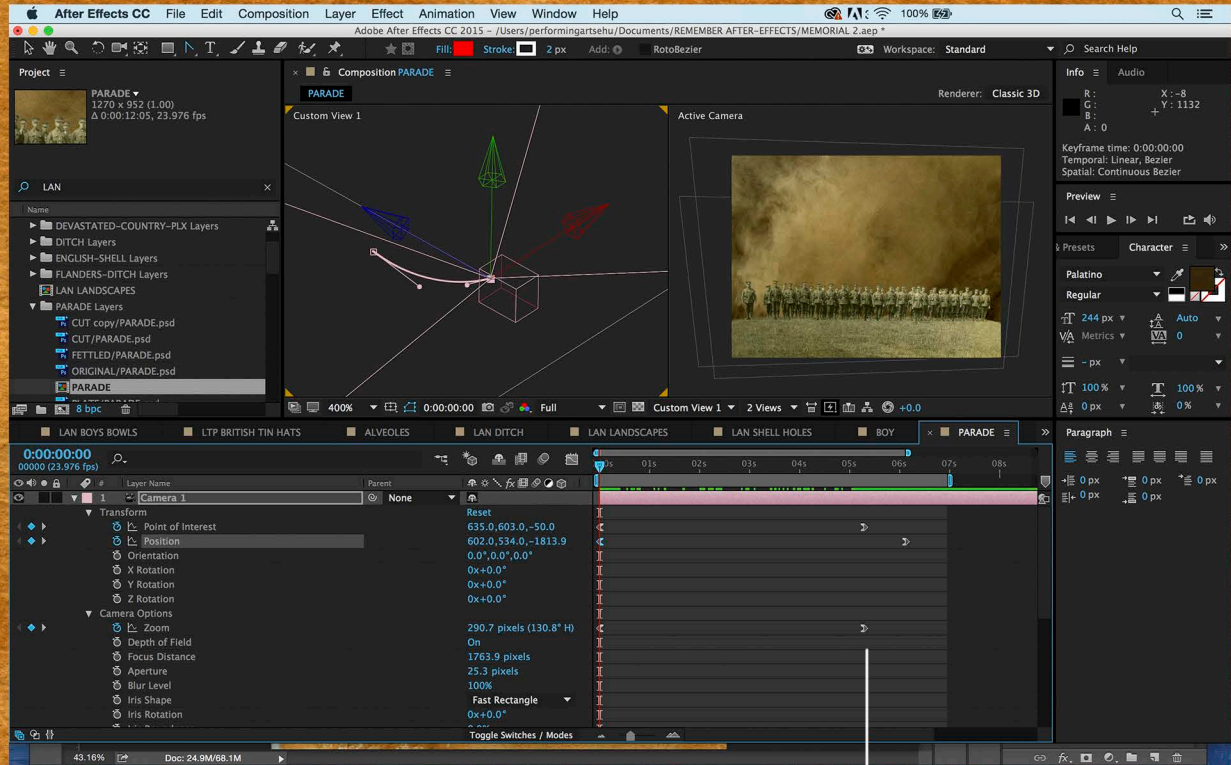
Keyframes whose shapes show that Easy Ease has been applied to cause them to affect the camera movement gradually rather than abruptly.

Camera

Camera path through time

5 PUPPETING

To puppet an arm, or a head, I use two different methods. I tend to use the Rotate parameter for animating arms. The Rotation point must be shifted from its central position on the Layer to the point of rotation. The rotation around this point can then be keyframed onto the timeline using a start position parameter and an end position parameter. Using Easy Ease and the Graph Editor ensures that keyframe shifts are smooth rather than abrupt by enabling their beginnings and endings to be gradual and thus life-like.

The second puppet method I've used frequently is the Puppet Pin Tool which involves making a Pre-composition (taking a layer into a new or nested composition which then relates its information back to its host composition). This pre-comp is then animated via the introduction of a connective mesh frame over the image to which are added Deform Pins, Overlap Pins or Starch Pins. Keyframing the movement of these pins affects the whole via information conveyed through the mesh. Pins can also be recorded moving over time by holding the Command Key while dragging the pins as the Timeline Indicator moves in real time, but I felt I got better results for what I needed by adjusting parameters manually via keyframing.


The effect is subtle because I want the viewer to be initially unsure as to whether they have seen movement or not, but the movement draws the eye. The effect I wanted was the tiny shifts of those trying to remain still in a photographic pose.

6 PARTICLES

Particles add environmental atmosphere and depth, and are added between the planes of the composition – dust swirling for example, or smoke drifting across a landscape. Particle Playground or Trapcode Particular are my particle systems of choice. Particle Playground was excellent for the cigar, pipe and cigarette smoke. Making cigar smoke necessitated the use of Expressions which have terrified me in the past. I have more or less conquered my fear!
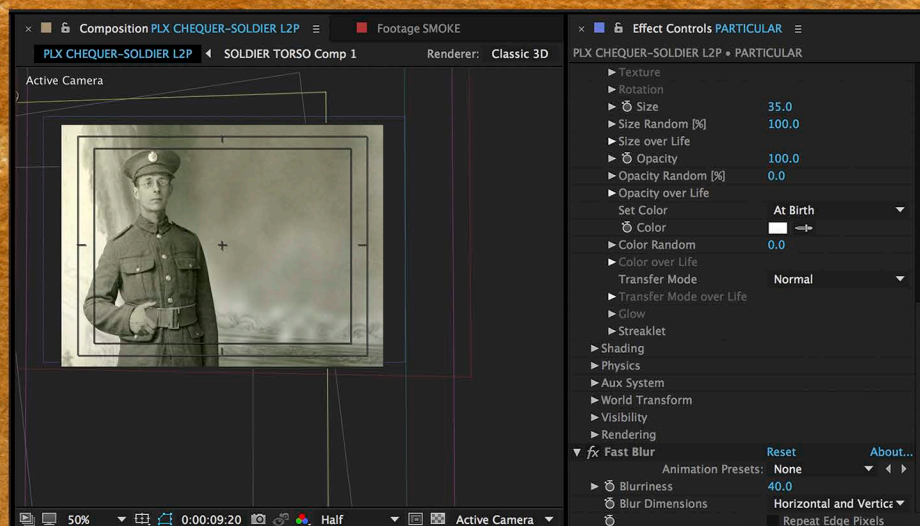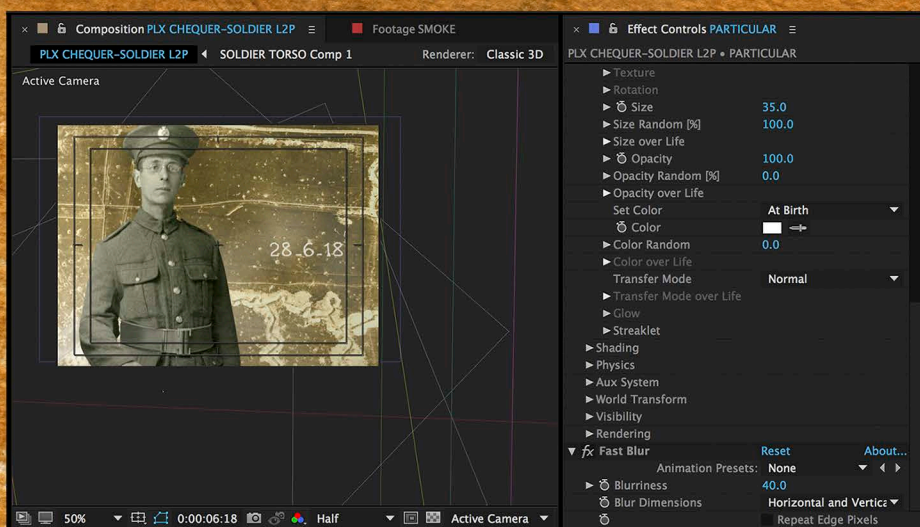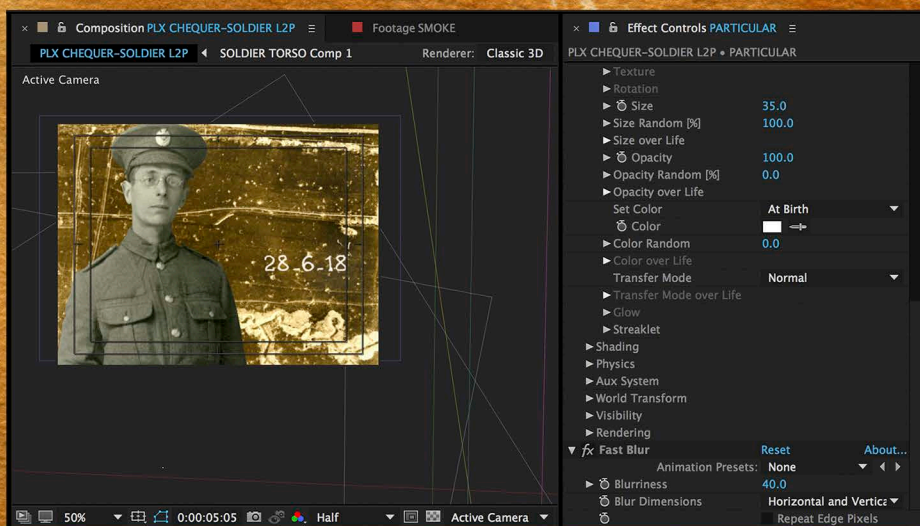
Expressions

"When you want to create and link complex animations, but would like to avoid creating tens or hundreds of keyframes by hand, try using expressions. An expression is a little piece of software—much like a script—that evaluates to a single value for a single layer property at a specific point in time. Whereas scripts tell an application to do something, an expression says that a property is something.

With expressions, you can create relationships between layer properties and use the keyframes of one property to dynamically animate other layers. For example, you can use the pick whip to link path properties, so a mask can take its path from a brush stroke or a shape layer object.

The expression language is based on the standard JavaScript language, but you do not need to know JavaScript to use expressions. You can create expressions by using the pick whip or by copying simple examples and modifying them to suit your needs."

After Effect Help, Adobe.com
https://helpx.adobe.com/after-effec
ts/using/expression-basics.html

7 EDITING

After animation fragments are edited into composition sections in After Effects, they are rendered and then taken into Adobe Premiere Pro where clips are trimmed and edited with transitions into sequences, which are then edited into a final edit. The final fim was sent to the Sound Designer who finalised the sound file. All files were then sent back to me for final render and output.

Source panel where individual clips can be previewed and edited with 'in' and 'out' points.

Programme Panel showing what the Time Indicator is 'seeing' in the Time Line. This is where the edit is previewed
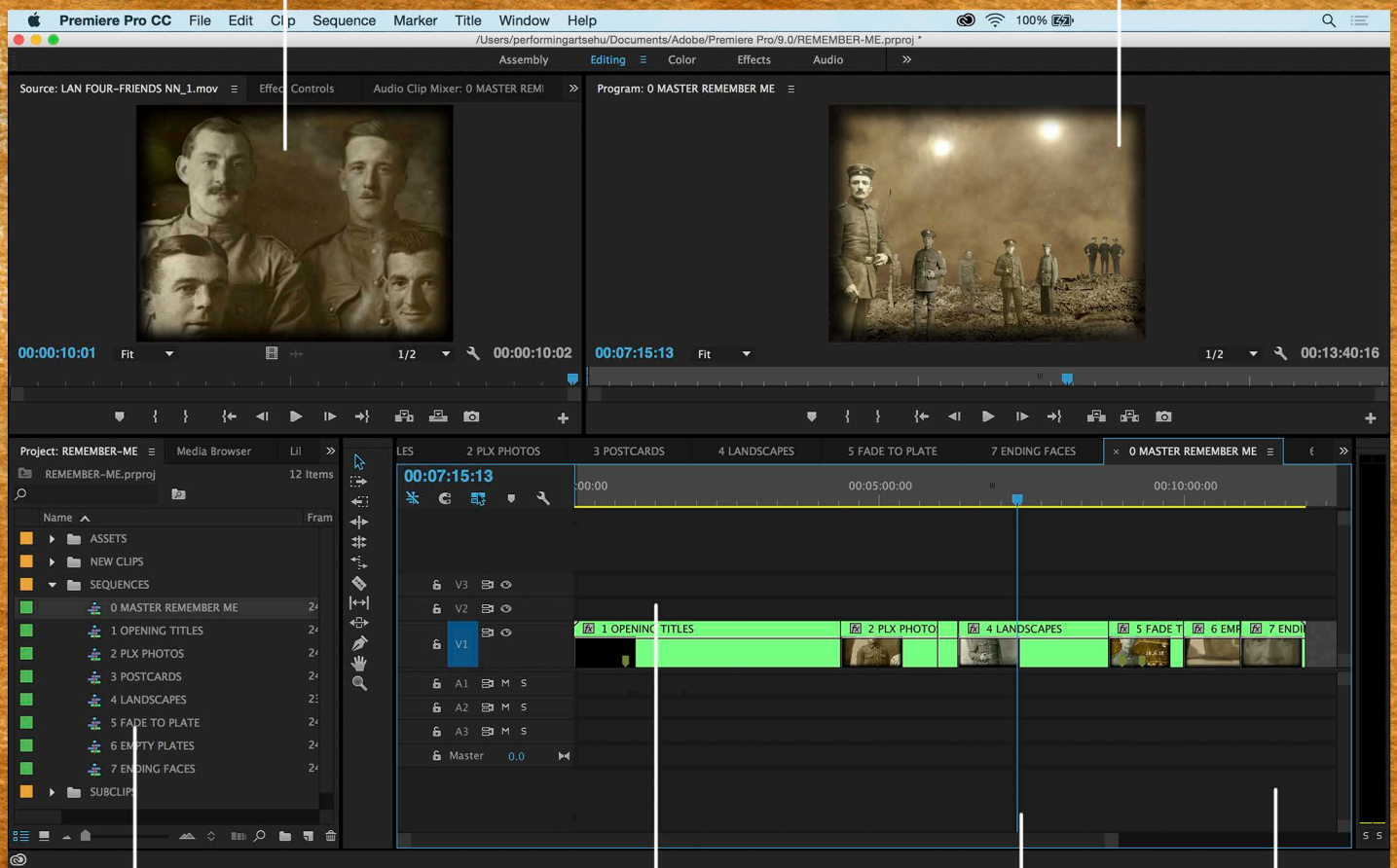
Assets or raw material imported from After Effects

Sequence built up of individual clips

Time indicator
The time line is showing a master sequence made up of smaller 'nested' sequences.

Time line panel

8 SOUNDTRACK

I commissioned Karen Lauke, an international sound designer based in the Manchester, a few months ago, when we discussed an abstract and dark ambient style soundscape. I have a strong synaesthetic response to music, and I find this kind of dark ambient soundscape to be brilliantly evocative for my internal visualscape. I suggested influences such as Lustmord, a very dark ambient music artist, and Aphex Twin, less dark, but equally 'ambienty' and imaginative. I knew that I didn't want to try to overlay the images with realistic sound, but that the surreal and uncanny visual atmosphere should be augmented with music composition. I suggested birdsong because in my reading of first hand accounts of the shelling on the battlefields many soldiers told of how the birds continue to sing, as if nothing was happening.

Karen worked initially with the animation fragments to make a palette of sound sequences built in layers from treated sound she captures herself. Sound was constructed and edited in Logic Pro, and then its running order was rough cut in Final Cut Pro. The voice over of the text I wrote was performed by Karen's husband, Paddy. The final film rendered out from Premiere Pros was sent over via Dropbox. Karen then finalised her composition and created a single sound file . This file was then Dropboxed back to me for final render and output.
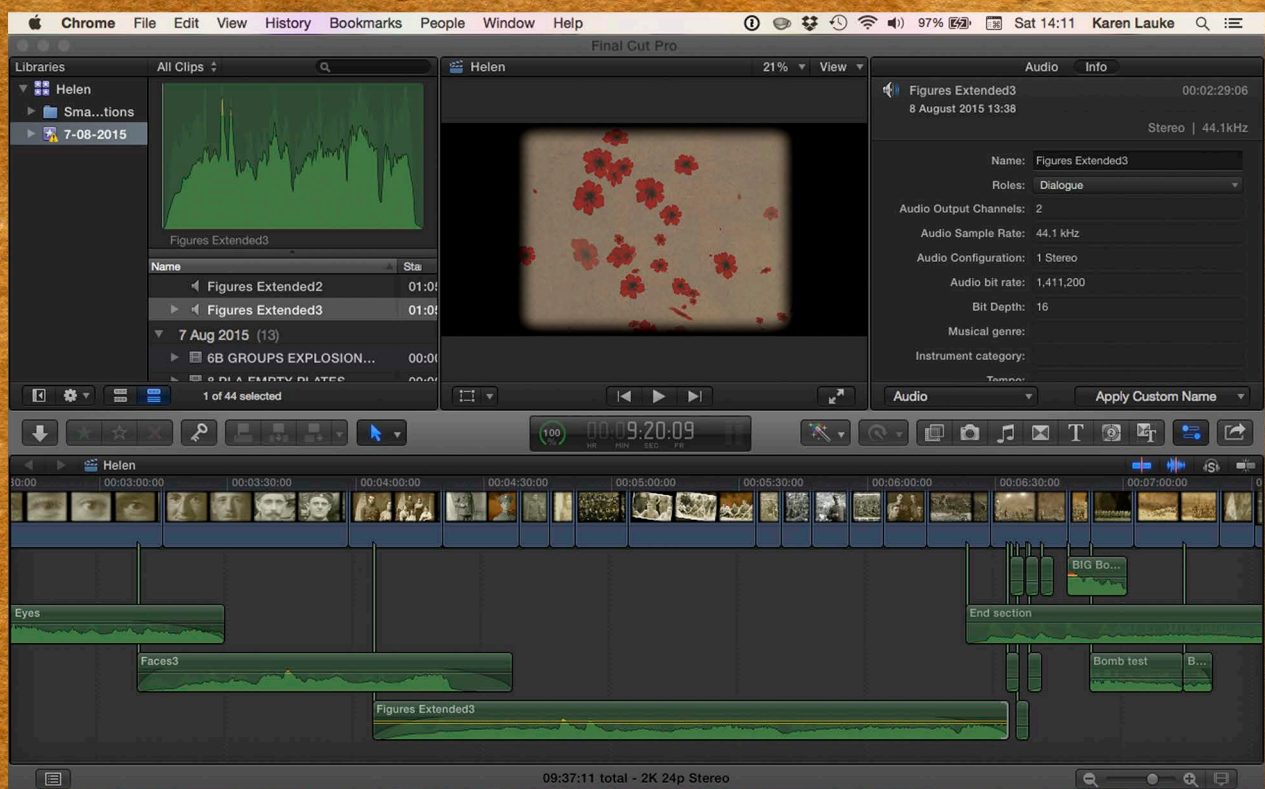
Sound files being assembled against the individual animation files in Final Cut Pro for a rough cut of the soundscape for first approval.

And that's all there is to it!