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# CS5245

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Vision and Graphics for  
Special Effects

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# Prelude:

## Storyline and effects

### Storyline

- Modern-time fantasy on spell casting
- Kenny and Fion are dating secretly
- Diana, being jealous of Fion, summoned a bounty hunter to kill her
- Fion, being cornered by the bounty hunter, dodged the bullet and casted a spell which allows her to walk through bookshelves as she made her escape



### Effects

- Bullet zooming past the camera
  - Actress running through the bookshelves
  - Actor disappears into smoke
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## Effect 1: Bullet zooming past the camera



The effect

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## Effect 1: Bullet zooming past the camera



The effect

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# Step 1:

Capture camera's motion path with Match Mover

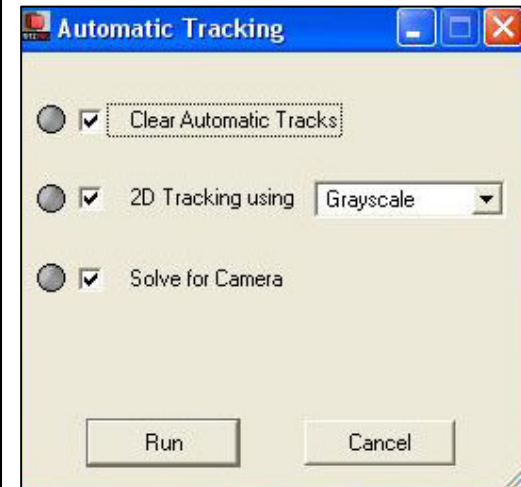


How we shoot



Raw capture

# Step 1: Capture camera's motion path with Match Mover



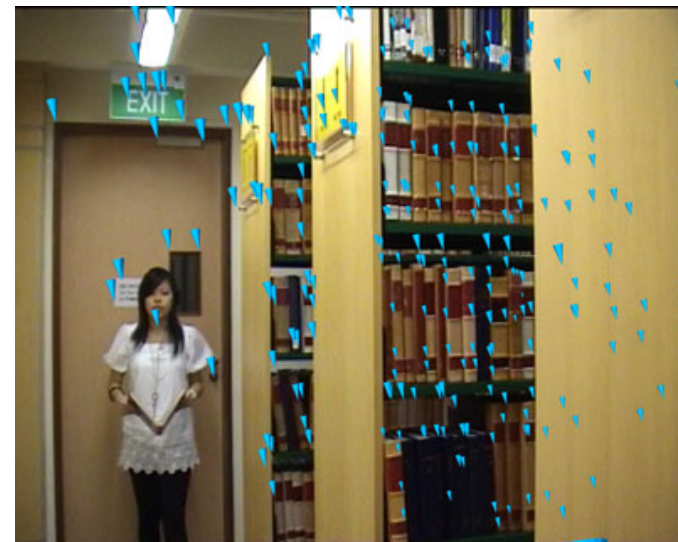
Tracking settings

# Step 1:

Capture camera's motion path with Match Mover

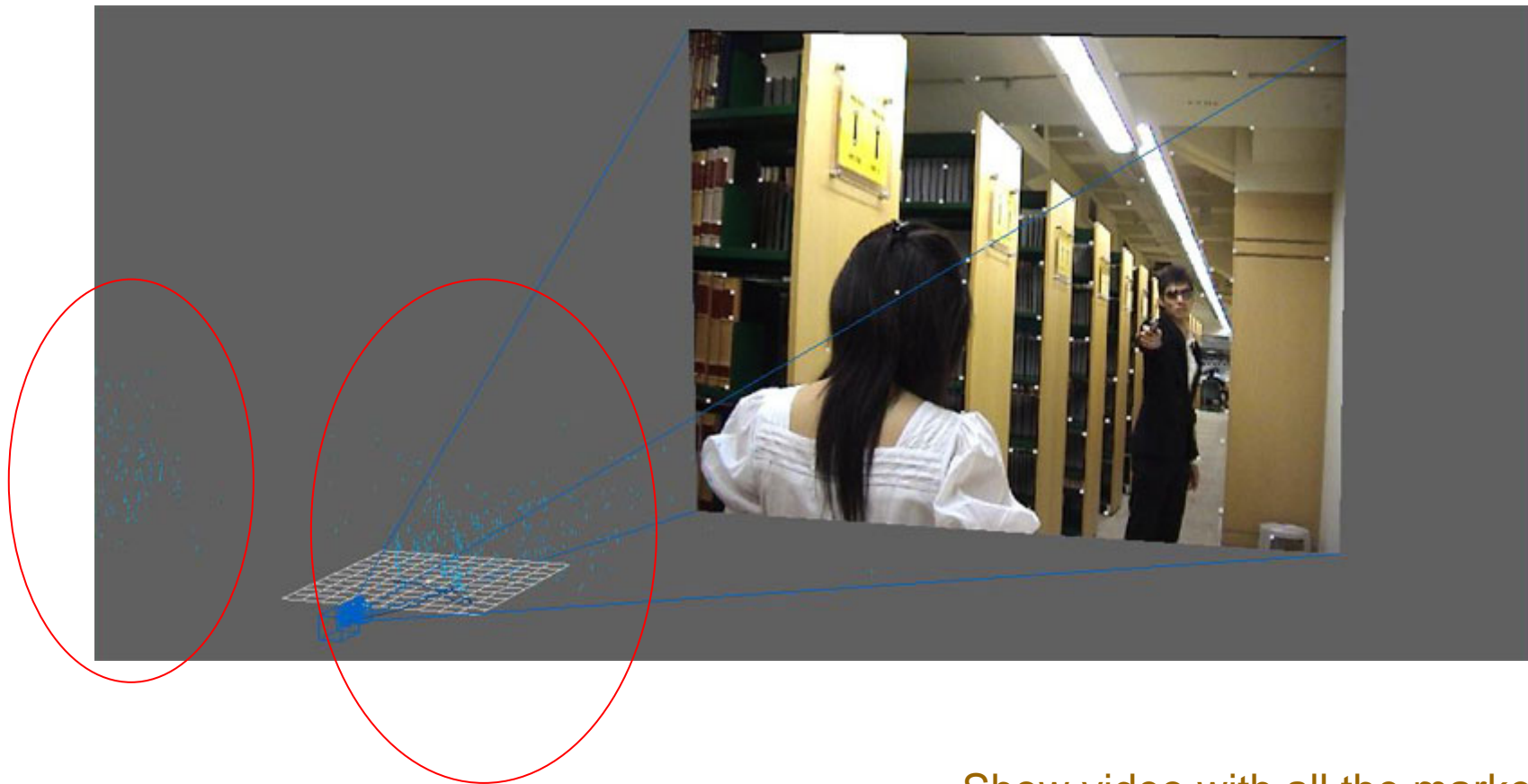


markers



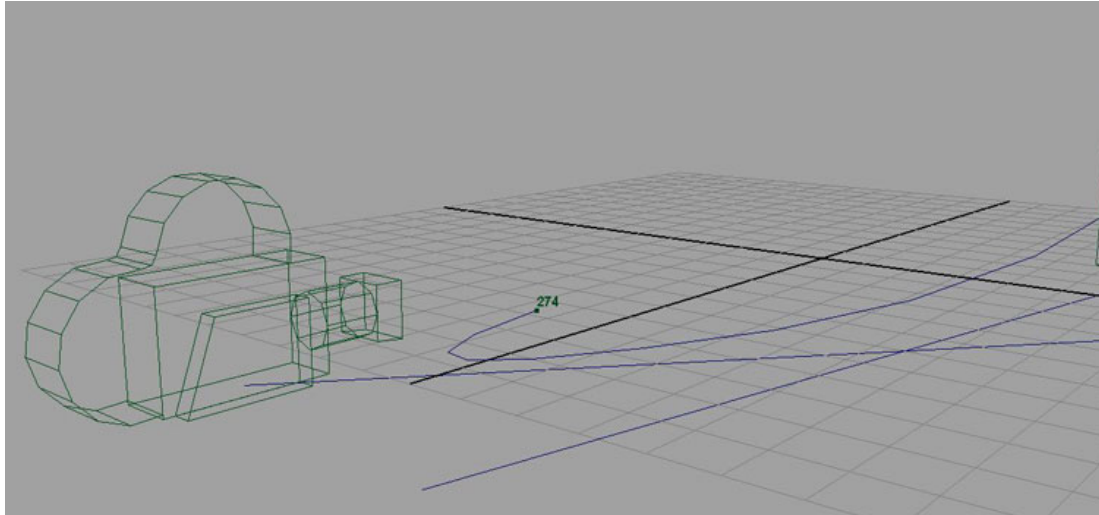
# Step 1:

Capture camera's motion path with Match Mover



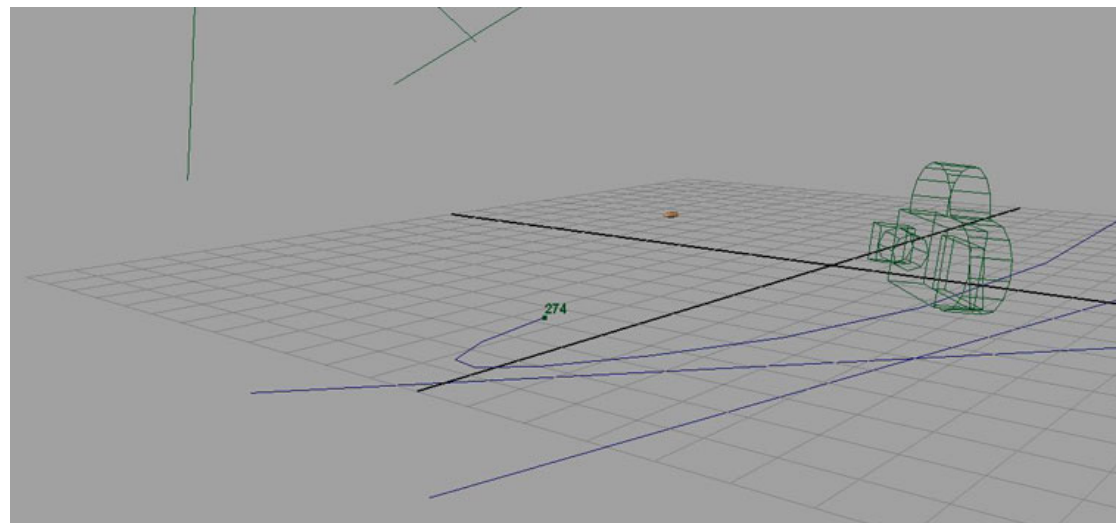
Show video with all the markers

## Step 2: Create computer graphic of bullet in Maya

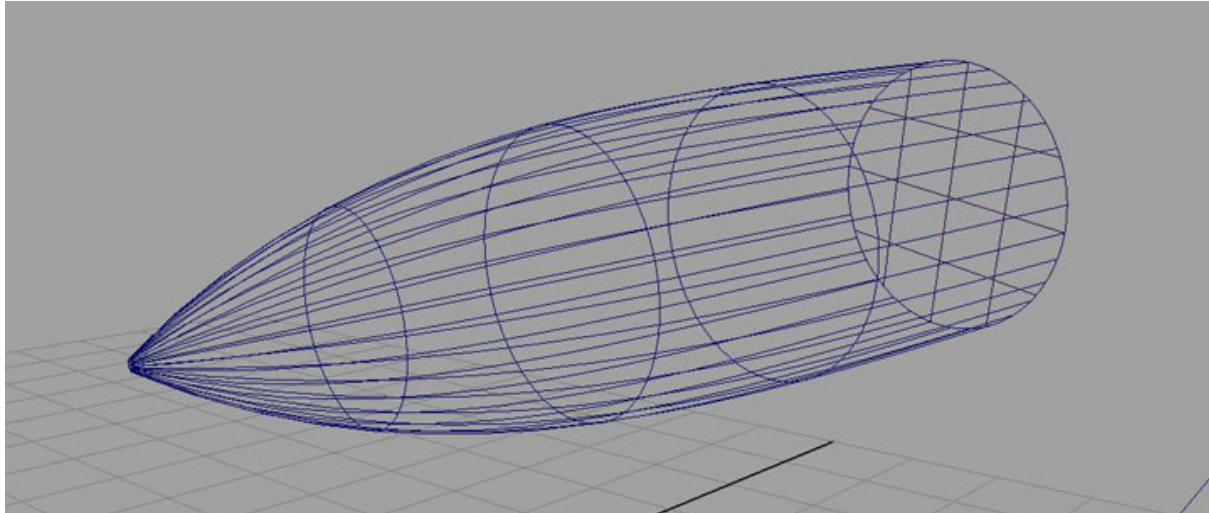


Frame 0

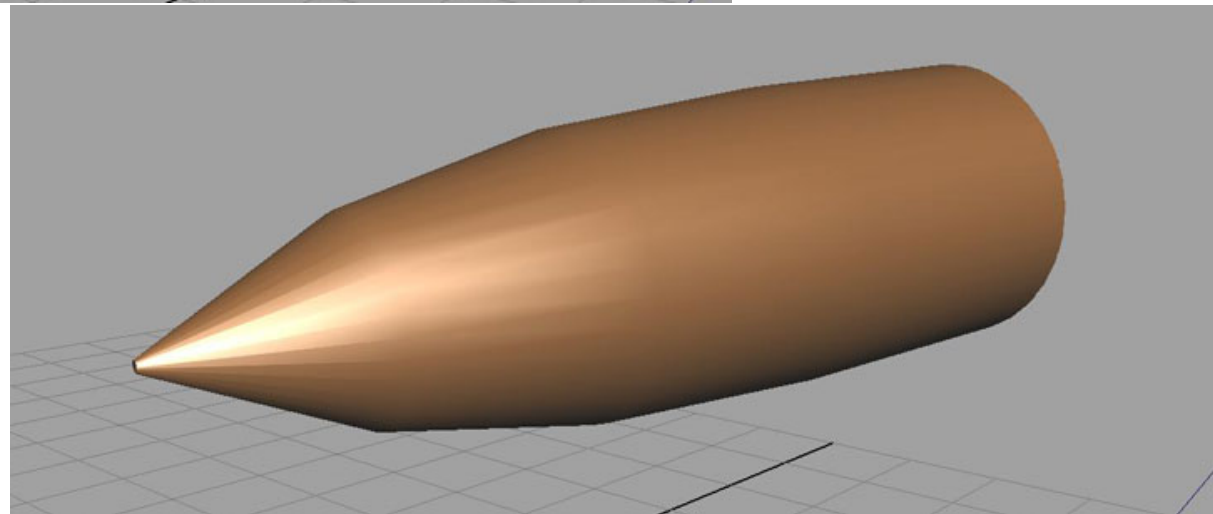
Frame 134



## Step 2: Create computer graphic of bullet in Maya



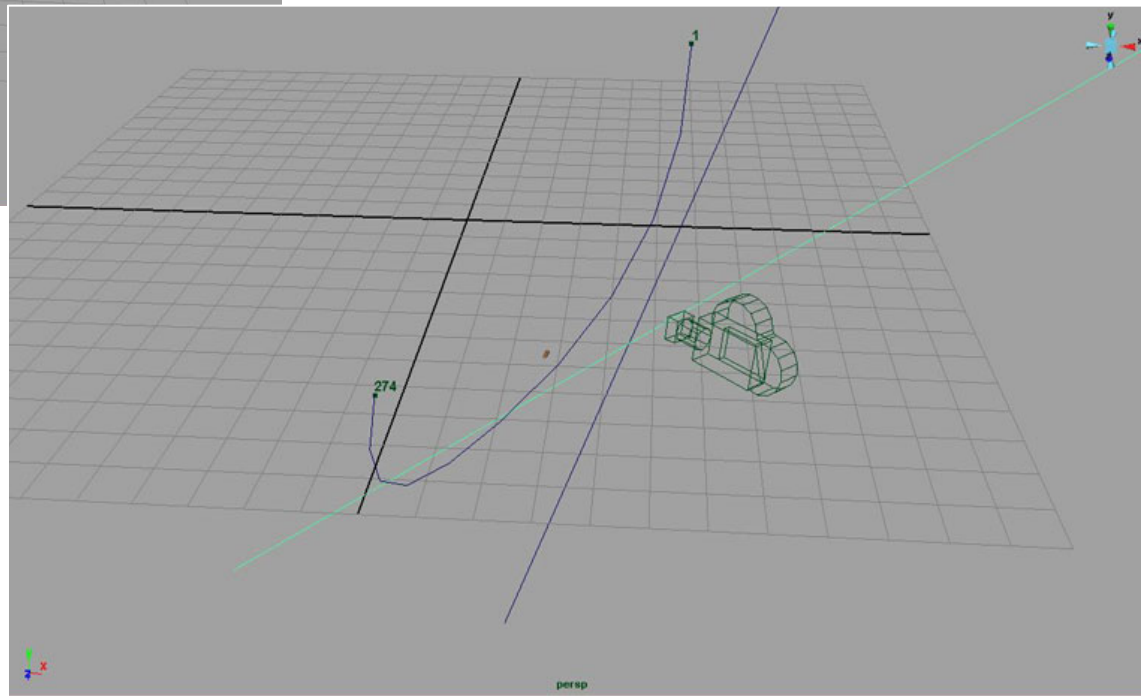
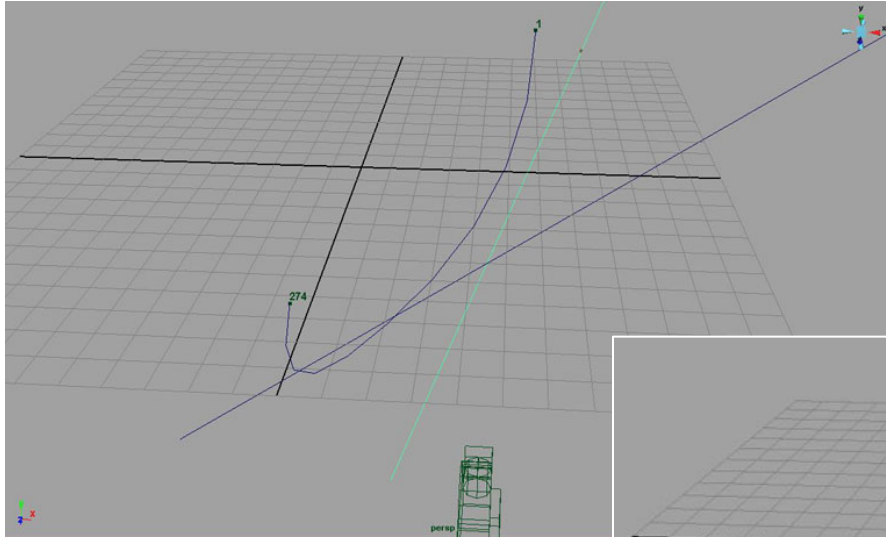
Modeling



Texturing

## Step 2: Create computer graphic of bullet in Maya

Bullet taking a linear path



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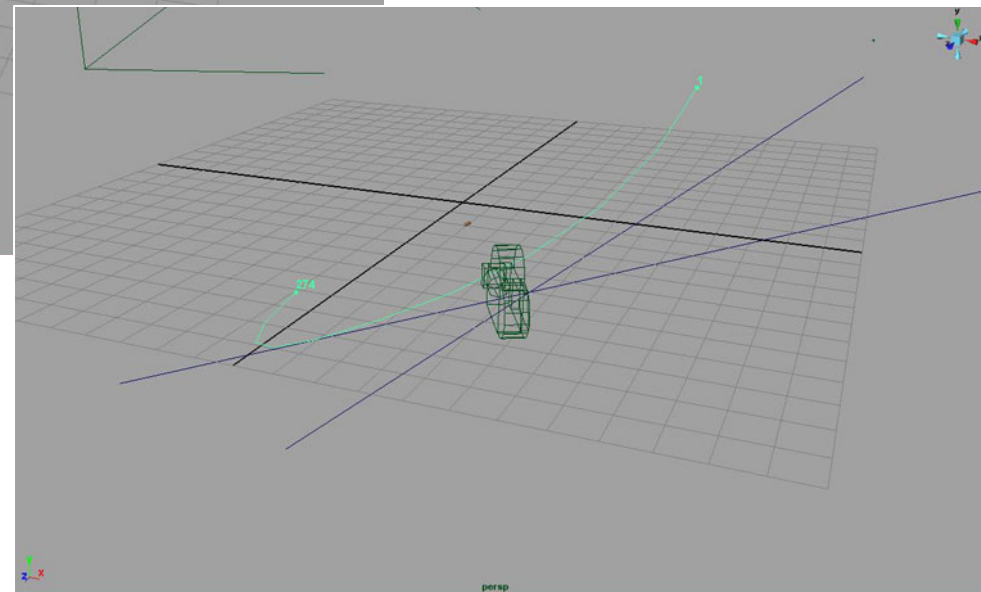
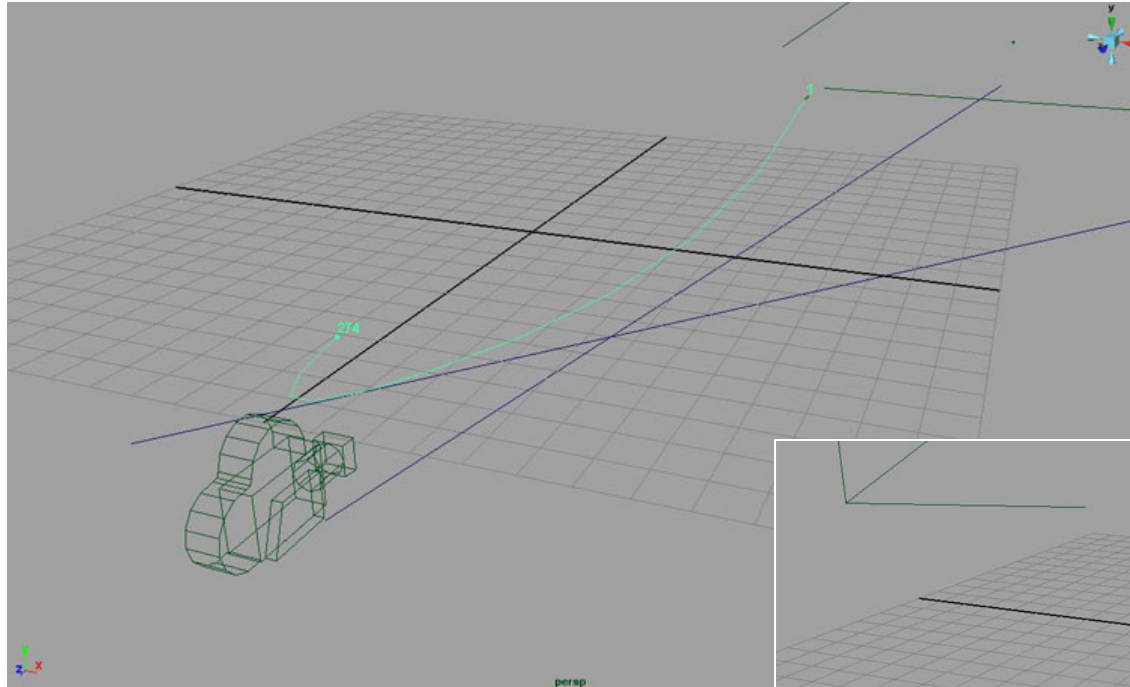
## Step 2: Create computer graphic of bullet in Maya

Bullet exiting towards the bottom left hand corner of the screen



## Step 2: Create computer graphic of bullet in Maya

Bullet taking a curved path



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## Step 2: Create computer graphic of bullet in Maya

Bullet exiting towards the center left hand side of the screen



## Step 2:

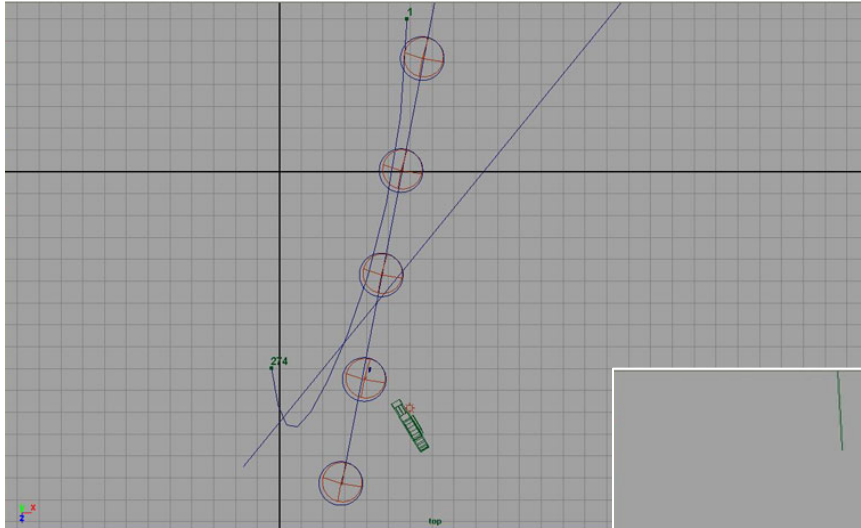
Create computer graphic of bullet in Maya



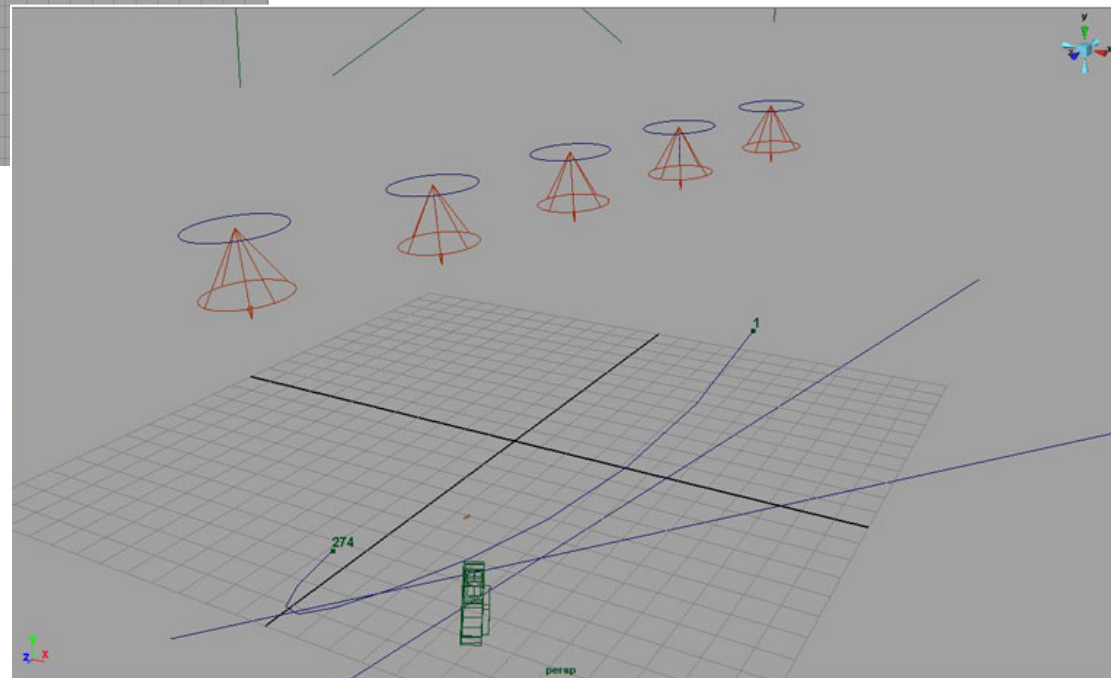
Linear lightings in  
the library

# Step 2: Create computer graphic of bullet in Maya

## Modeling of the lightings



Top view



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## Step 2: Create computer graphic of bullet in Maya



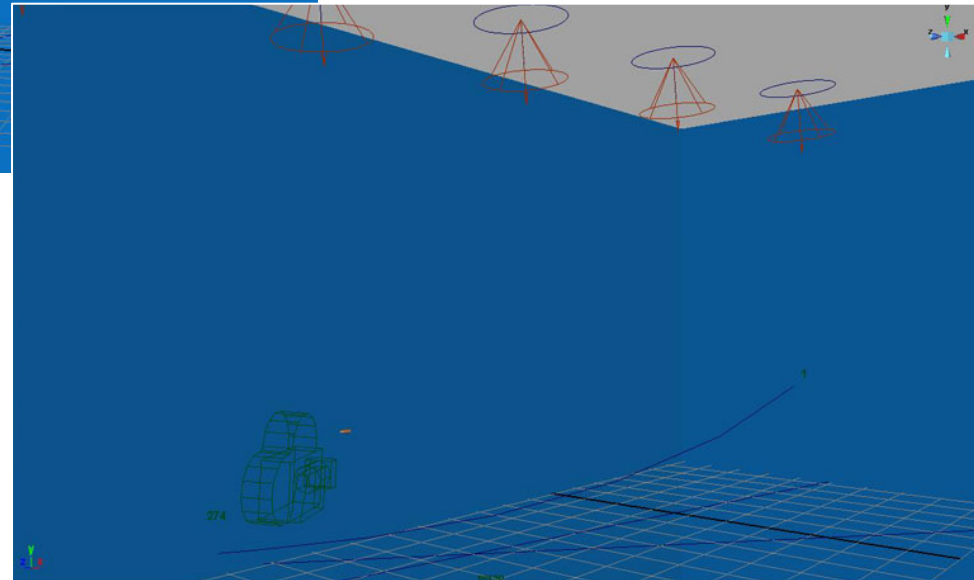
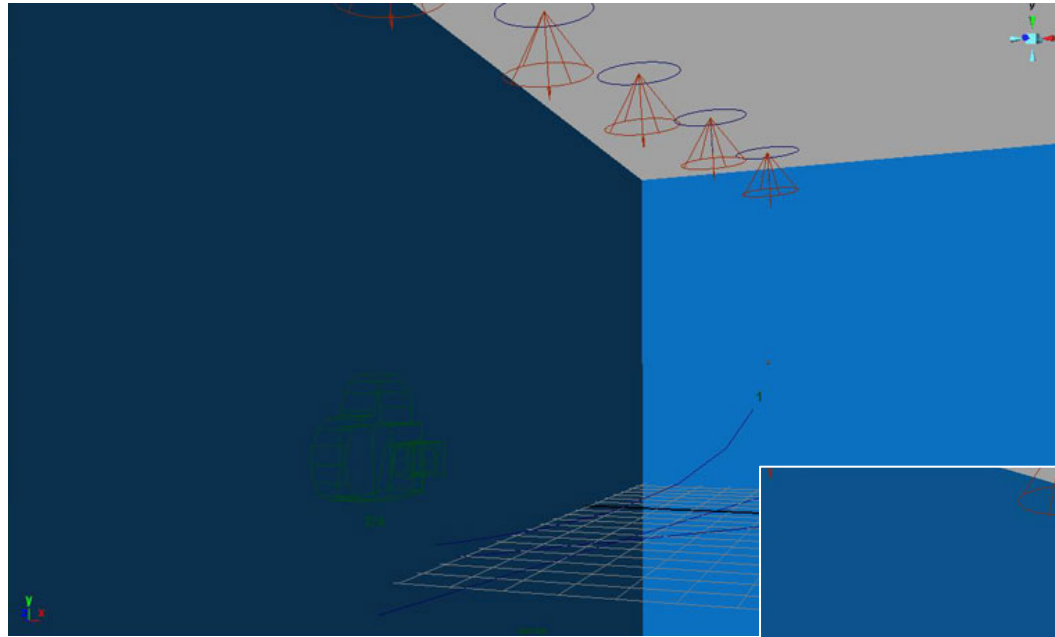
Hole in the bullet

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## Step 2:

### Create computer graphic of bullet in Maya

Setting up the blue screen



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## Step 2: Create computer graphic of bullet in Maya



# Step 3: Compositing in After Effects

Keying out the bullet



Applying advantedge

## Step 3: Compositing in After Effects

Keying out the bullet

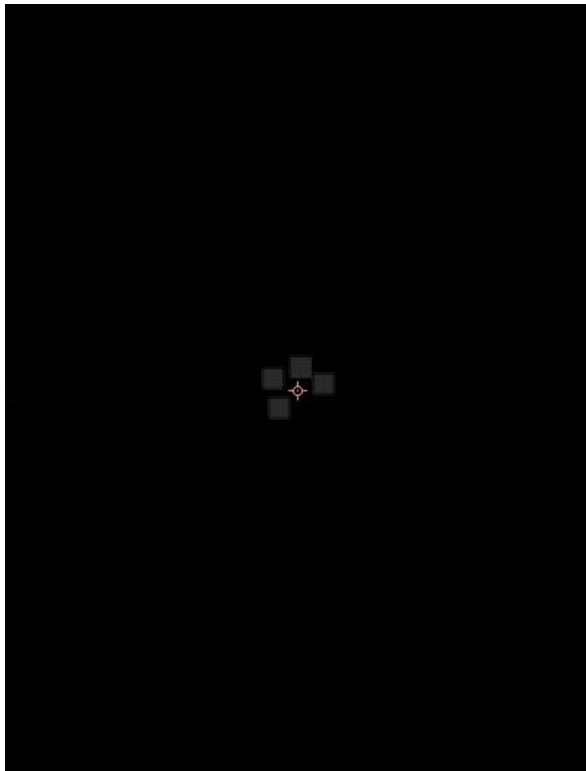


Applying colour key afterwards

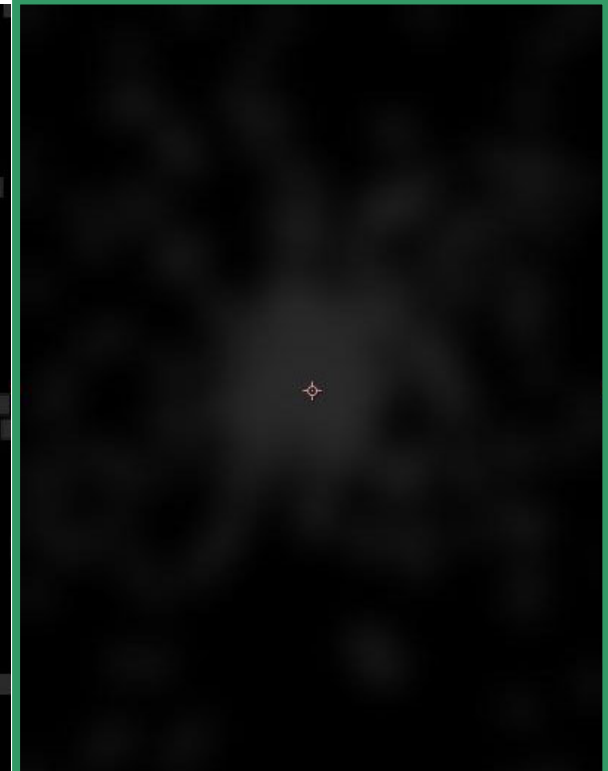
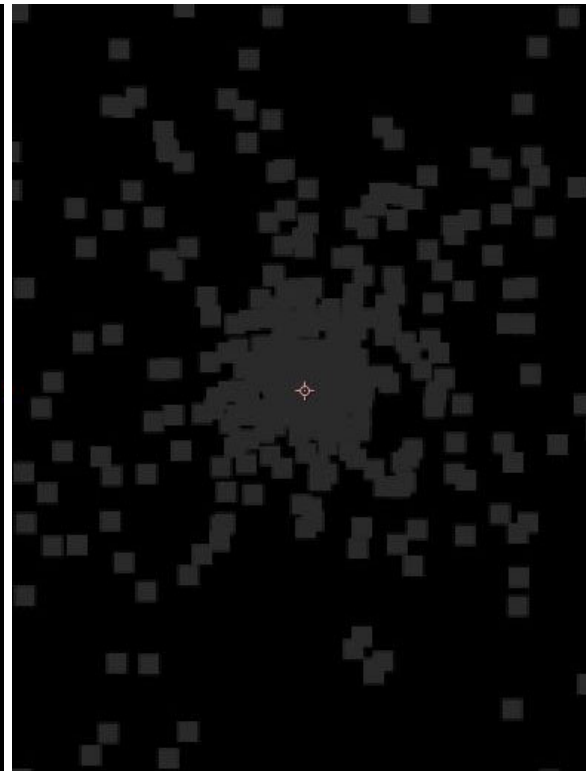
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# Step 3: Compositing in After Effects

## Creation of smoke



Particles playground

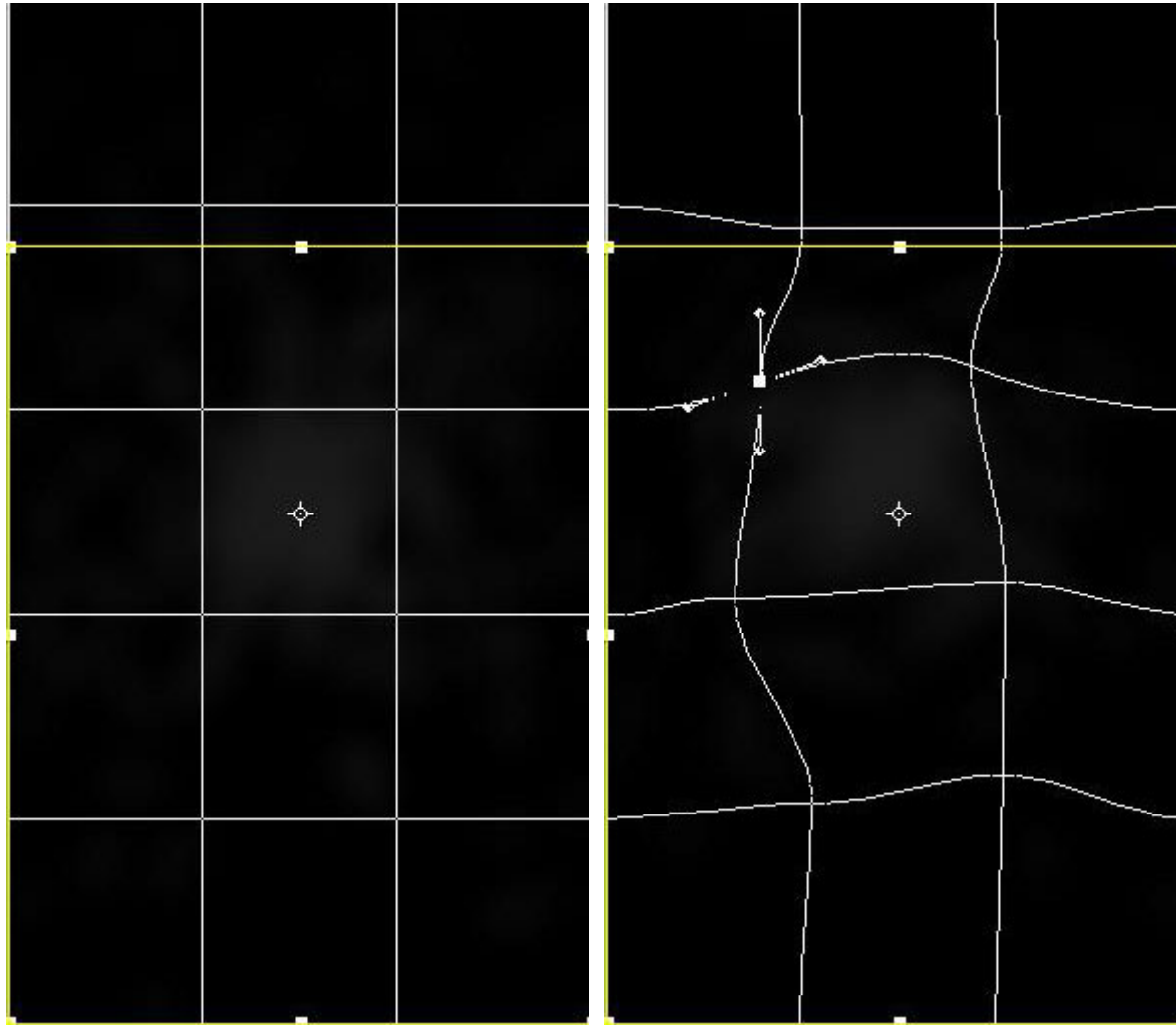


Fast blur effect

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# Step 3: Compositing in After Effects

Creation of smoke



Mesh warp

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## Step 3: Compositing in After Effects

Creation of smoke

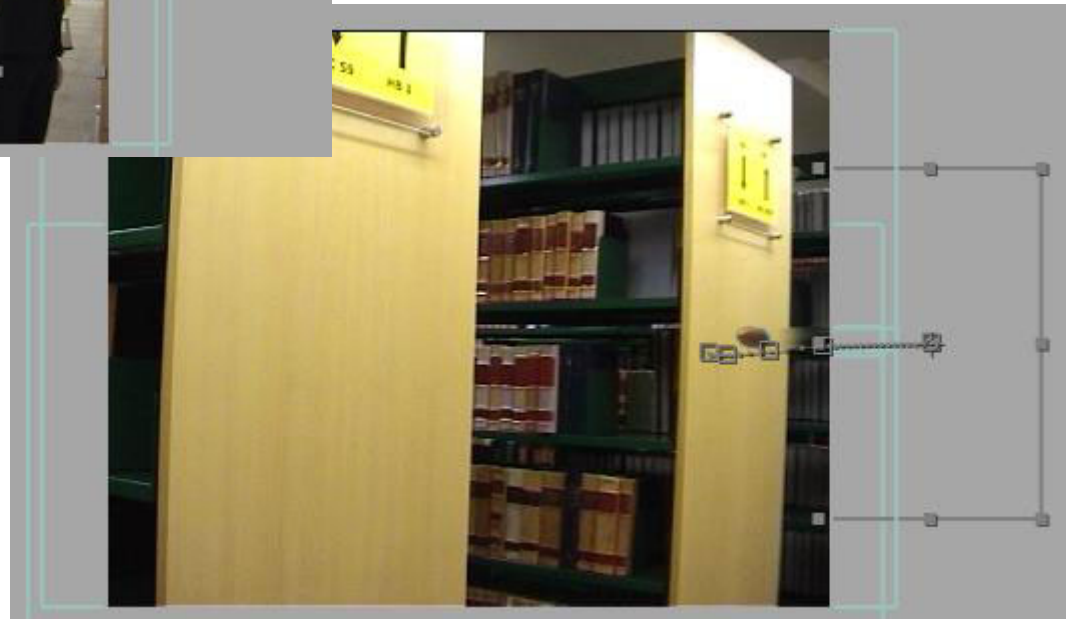


Transform function

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## Step 3: Compositing in After Effects

Creation of smoke



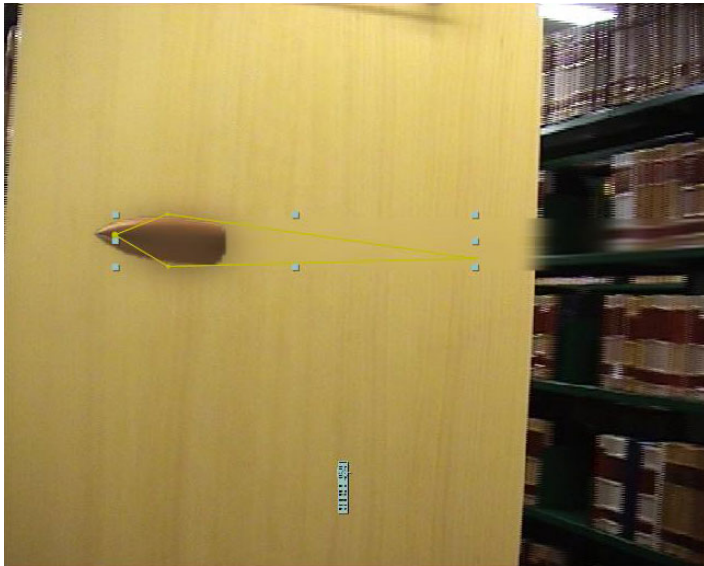
## Step 3: Compositing in After Effects

Creation of blurred trail

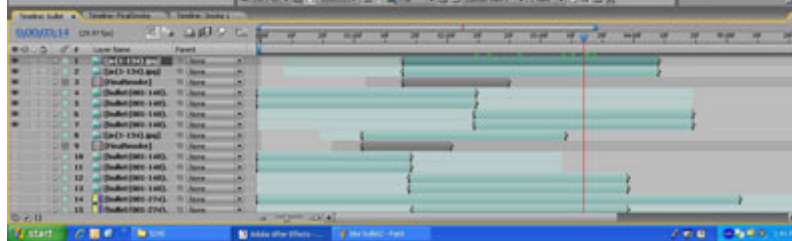
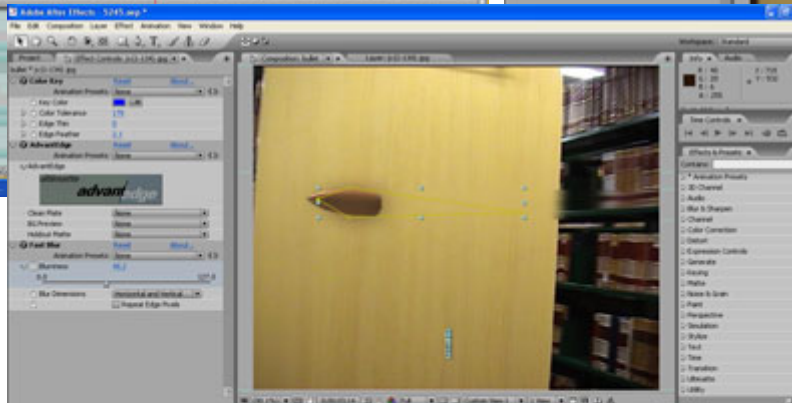
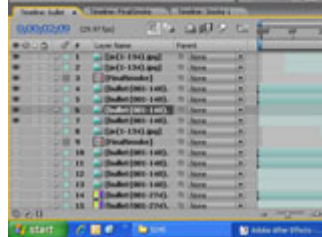
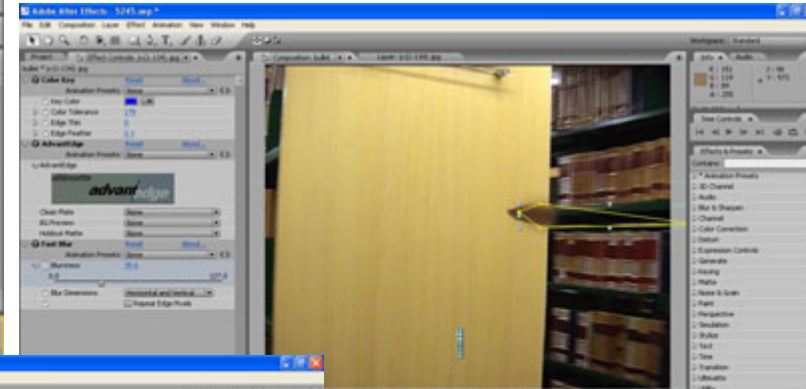


# Step 3: Compositing in After Effects

Creation of blurred bullet



# Step 3: Compositing in After Effects



Show video again

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## Effect 2:

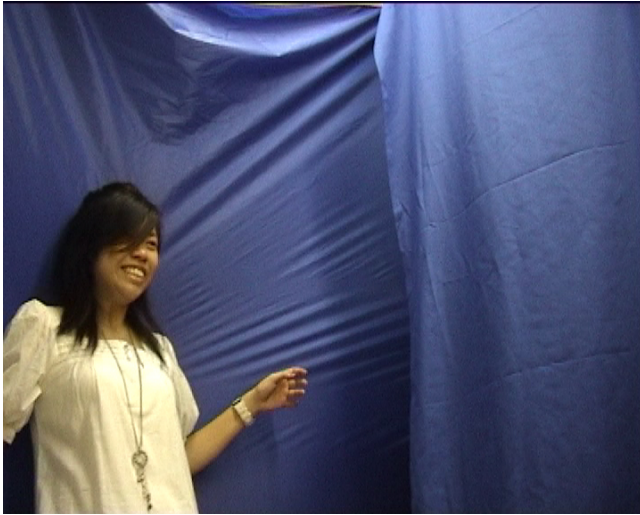
Actress running through bookshelves and hiding in it



The effect

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## Effect 2: 1<sup>st</sup> Attempt (failed)

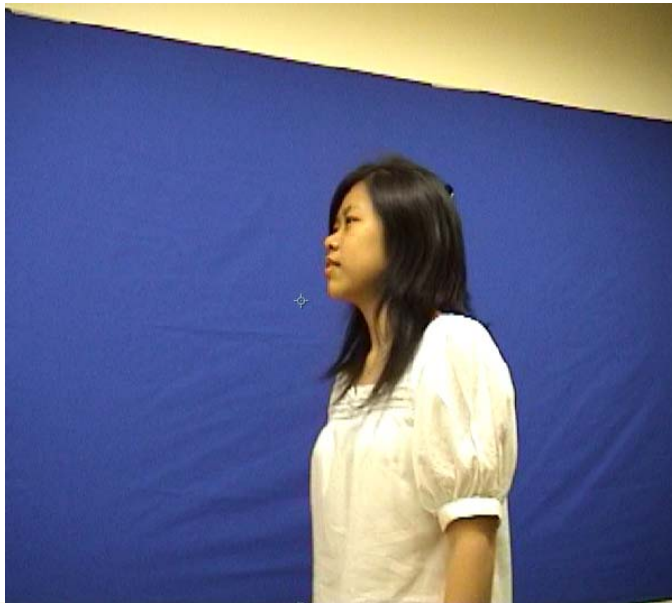


- Wrong method of filming
- Very difficult to key due to bad footage
- Unsuitable camera angle for the effect

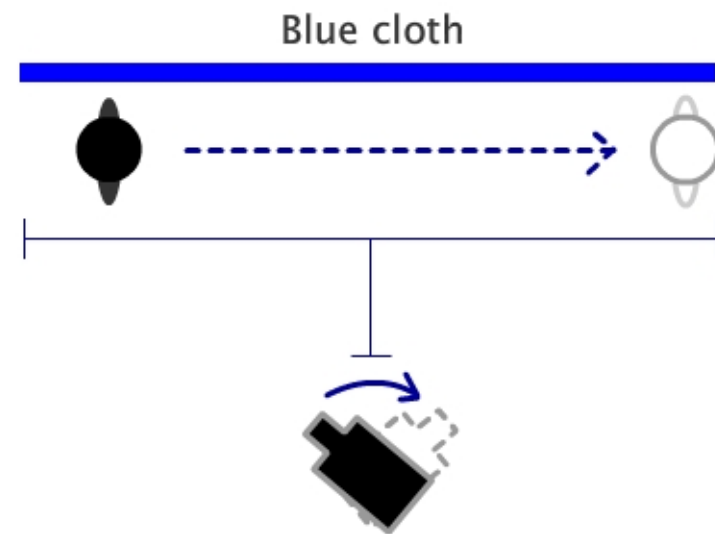
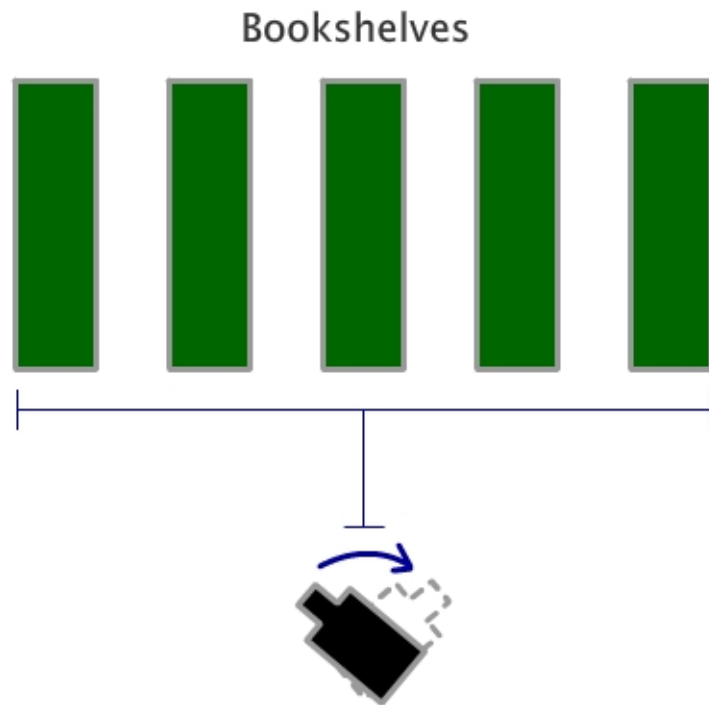
## Effect 2: 2<sup>nd</sup> Attempt (failed)



- Not novel enough (Flat surface)
- Not dramatic enough
- Can be improved



# Step 1: 3<sup>rd</sup> and final attempt



# Step 1: 3<sup>rd</sup> and final attempt



“Hiding Area”



# Step 1:

Filming of Shelf-to-shelf as background footage

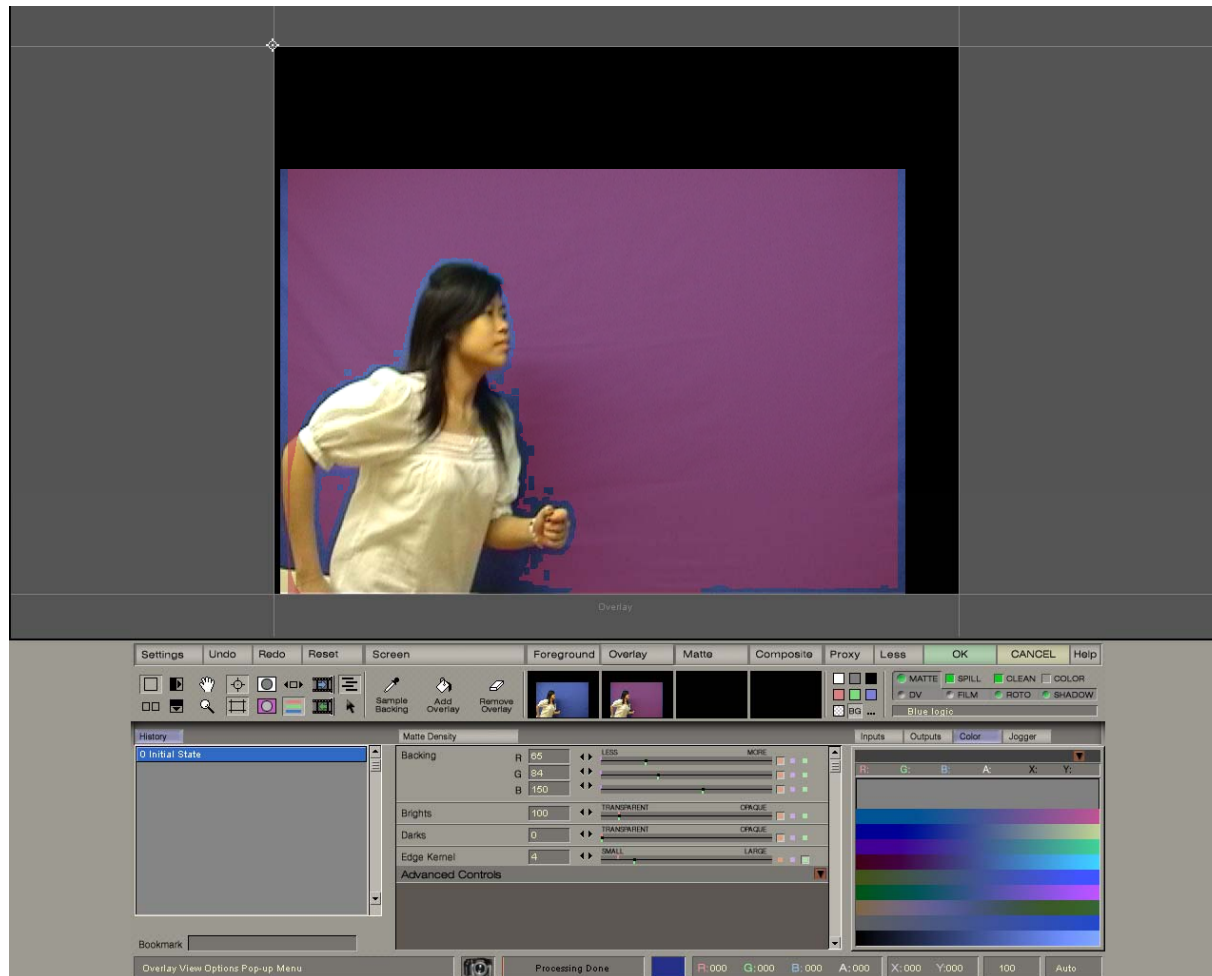


# Step 2: Keying Using Advantedge: Sampling Background



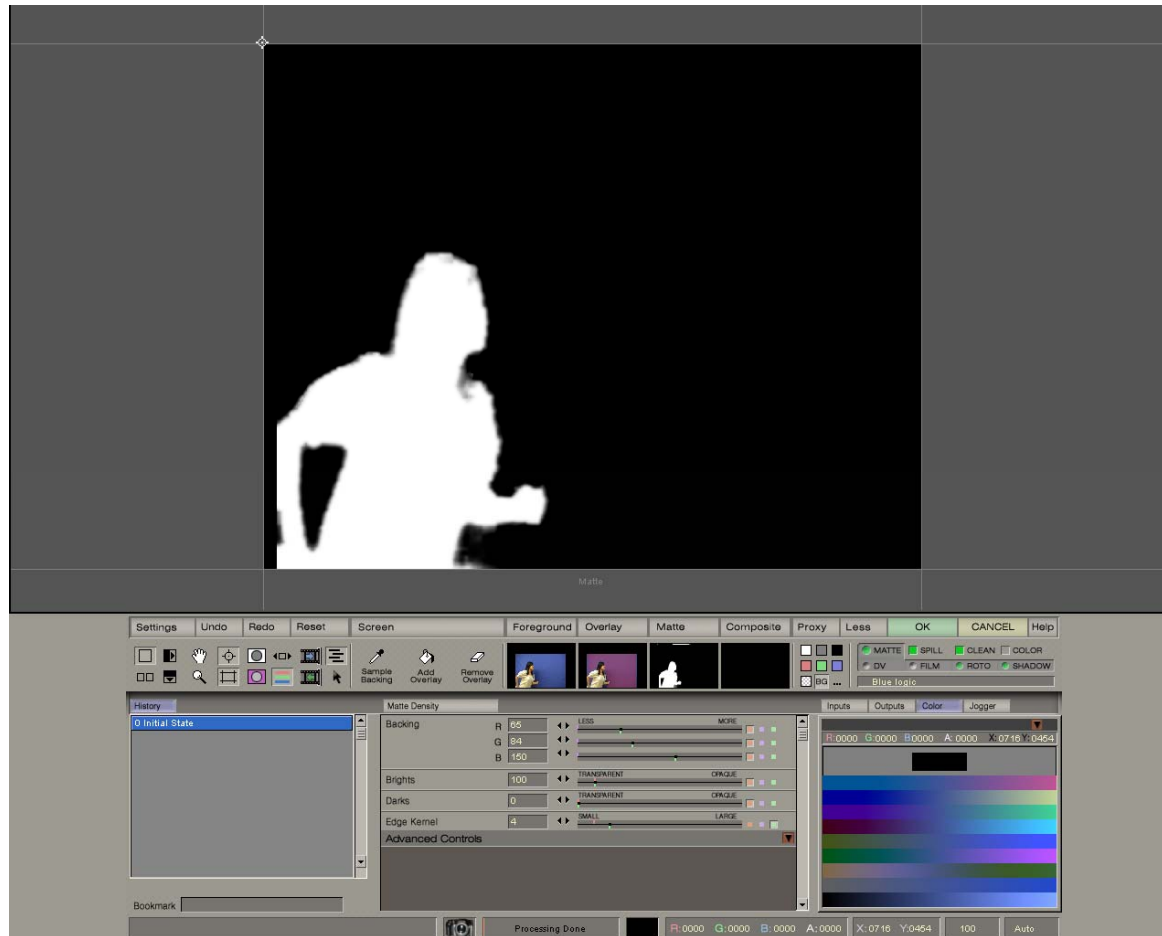
# Step 2:

## Roto-Screen correction: Adding/removing overlay



# Step 2:

## Adjusting the MATTE: Adding Matte/Removing Noise



# Step 2: Shadow Removal / Cleaning up

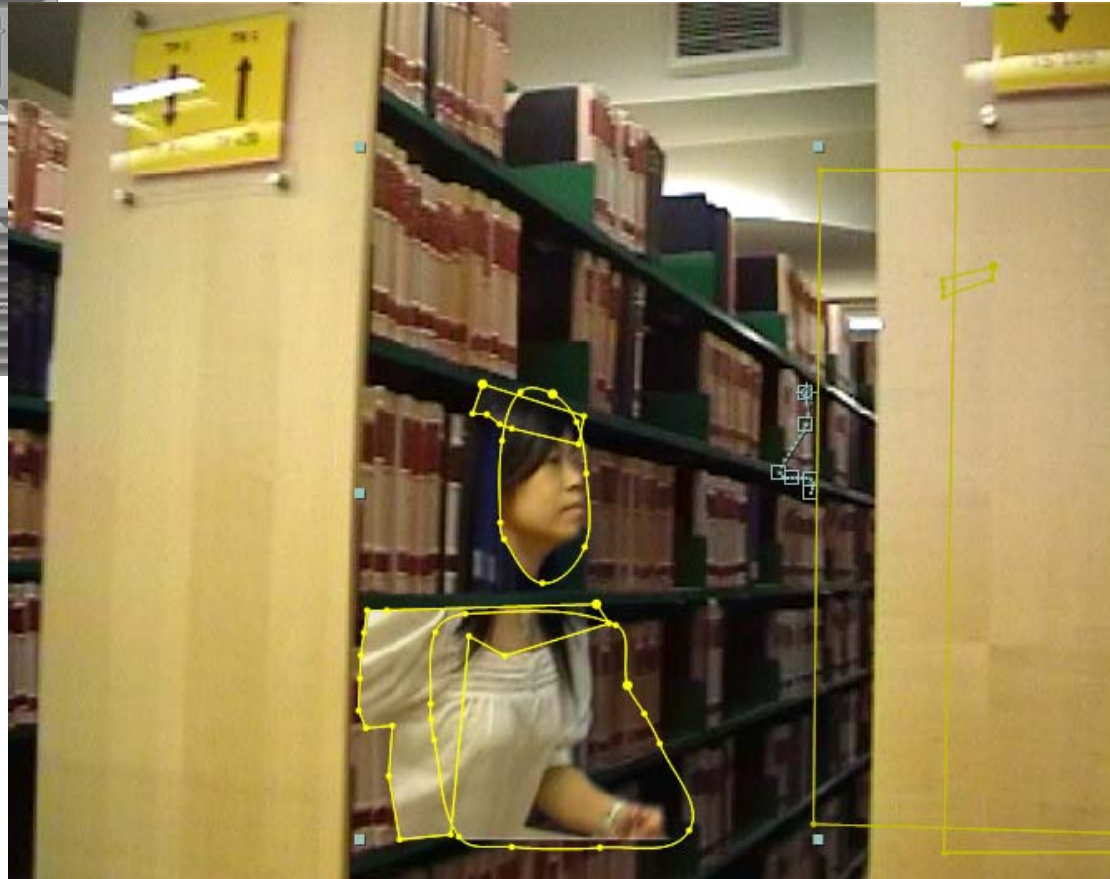
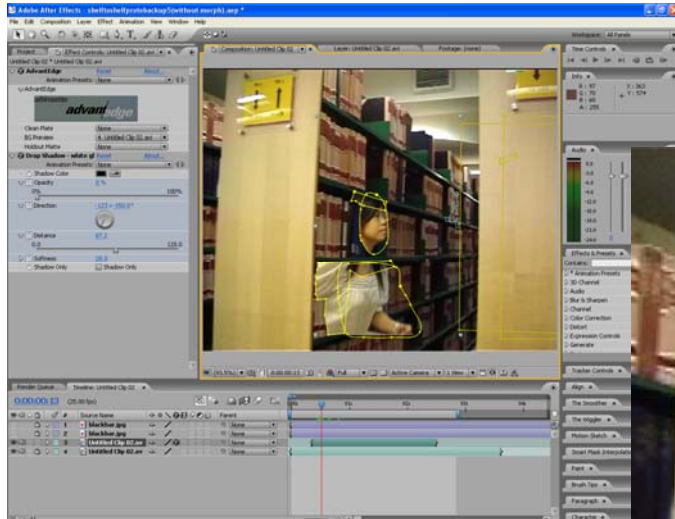


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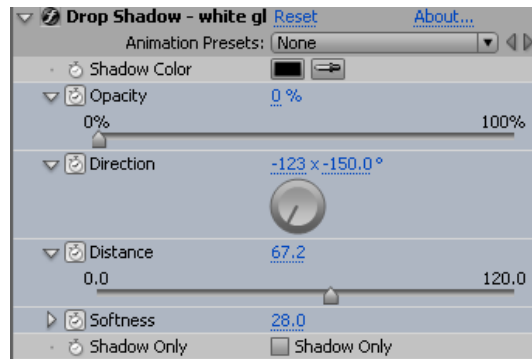
## Step 3: Composition of fore and background



# Step 4: Masking of Foreground in AE: (Adding and Subtracting Masks)



## Step 4: Adding of Shadow in AE



Show video again

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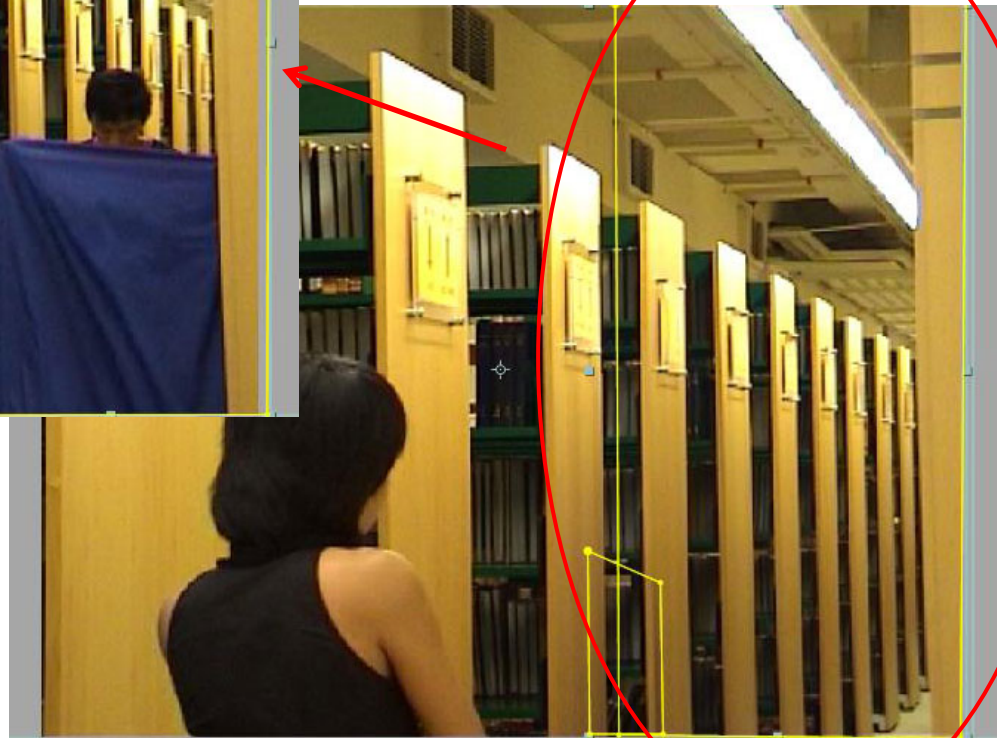
## Effect 3: Actor disappearing into smoke



The effect

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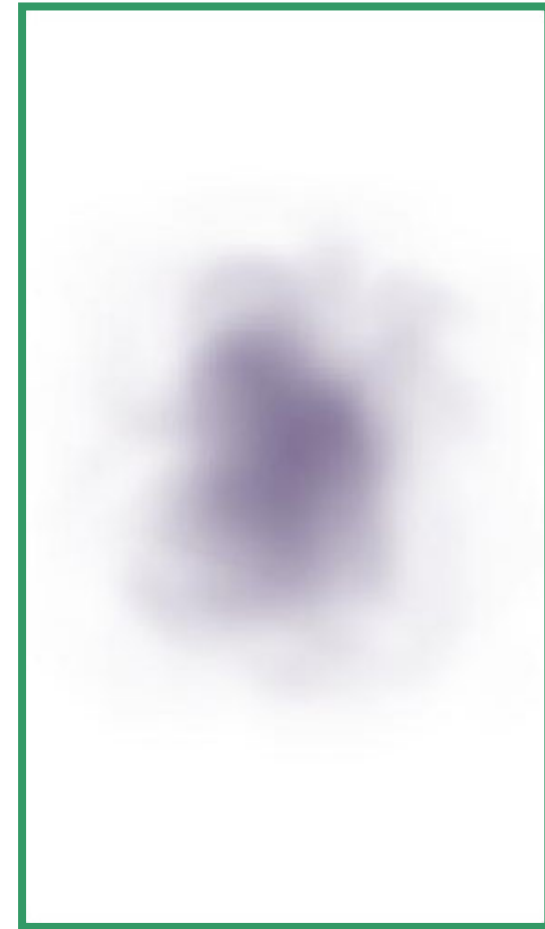
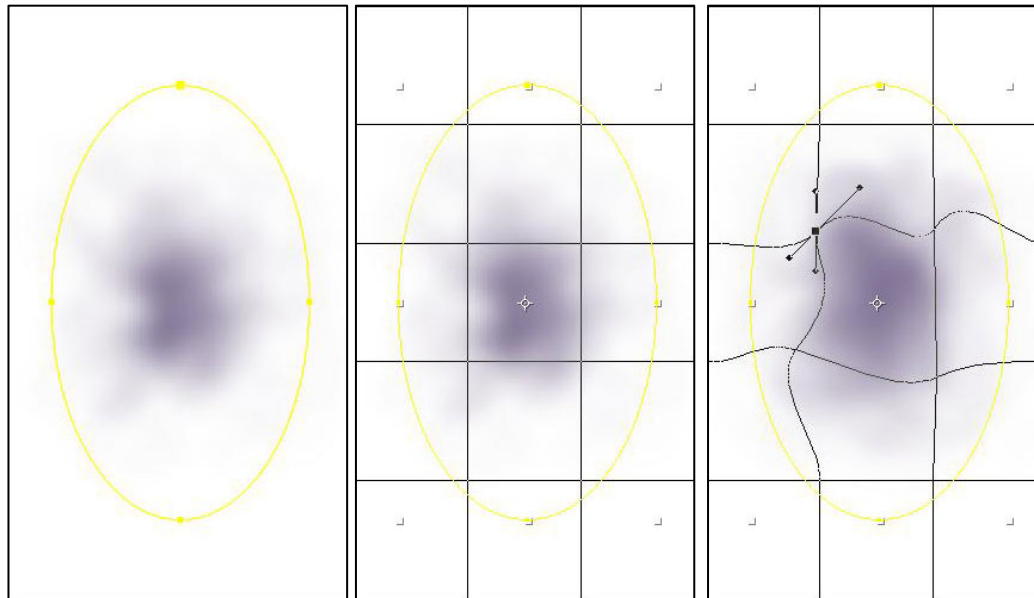
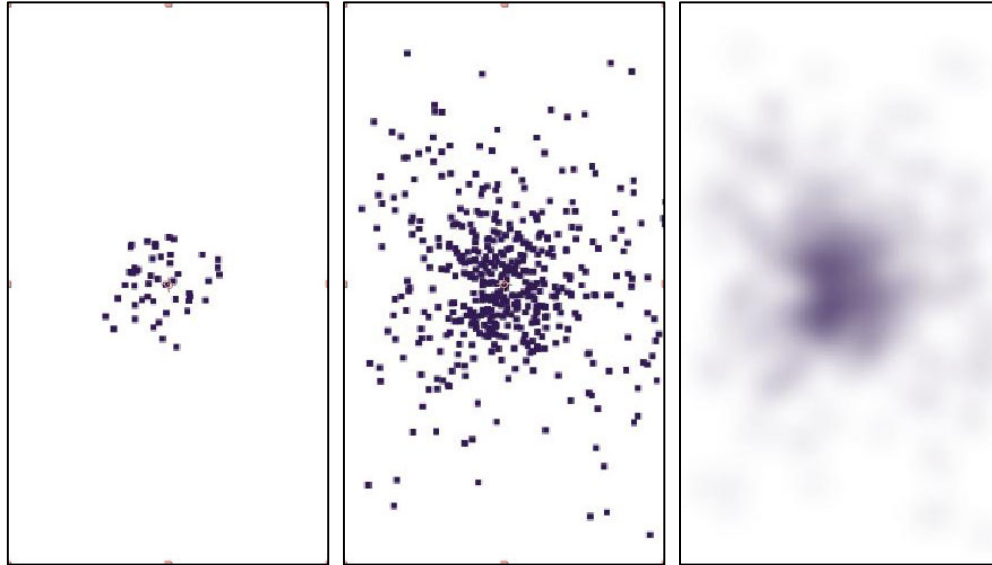
# Step 1: Disappearance of actor



# Step 1: Disappearance of actor



## Step 2: Creation of smoke



### Step 3: Appearance of smoke



## Step 4: Combining both effects



Show video again

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# Ars Goetia:

Our video



The Making of Ars Goetia

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# The End

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Lee Jianxing  
Alvin Ng