

The 20th Century Cameras
Audio Guide

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Preface

This short document has been designed in order to aid everyone who has purchased, or wishes to purchase the *20th Century Cameras Audio Library* by SKYES Audio.

In this book I'm going to briefly explain how older cameras work, and then I will go through each individual camera that was recorded for the library and explain what each button, latch and knob does, as long as it is sonically relevant, in order to perfectly replicate what an actor might do on screen, through the use of the correct sound effects.

Before we begin, a quick word on the sounds of film being unspooled, installed, etc. Given the rarity and cost of original 120 and 620 film from that era, I was only able to record film being placed in, installed and wound in only one model from each type of camera in the library. Searching for '*film winding*' in the library will reveal the relevant files, which will be close enough to use on any model within each type of camera (box, TLR, folding, and SLR).

How Do They Work?

Film cameras designed in the previous century ranged from basic box cameras to complicated SLRs, able to bend in many ways in order to achieve the photographer's vision. That being said, they all basically function the same way.

Simply put, the camera itself does not 'take' the photo. In order for a scene to be permanently preserved, light travelling through the lens needs to be allowed to expose the film at the back of the camera. All that a camera needs to do is open its shutter, and allow the film behind it to be exposed to light. The amount of time that a shutter is open for can range anywhere from 1/1000th of a second or less, to entire minutes. The amount of time that a shutter is open for is referred to as "shutter speed". The longer the shutter is open, the more light is allowed to get through, and the brighter the image will be.

Very early box cameras typically had a default shutter speed which could not be changed. All that the user could do was press the shutter release. As cameras evolved over time, the user had access to other features beyond the shutter speed, such as aperture, ISO, timers, and more.

When learning the art of photography, one has three main variables to be concerned with, in order to determine how the photograph will look: Shutter speed, Aperture (or f-stop), and film speed, measured in ISO.

Shutter Speed

As discussed previously, shutter speed is the amount of time that the shutter will be open for, allowing the film behind it to be exposed to light. Early devices, such as box cameras, only had one shutter speed, but as technology progressed, photographers were given far more choice.

Aperture

Aperture, or f-stop number, refers to the lens opening, or how much light passes through the lens. A wide aperture, counterintuitively represented by a lower number, allows more light to pass through, and narrows the depth of field, which results in photographs in which the subject is sharp, but the background is blurry. This effect is often referred to as *bokeh*.

To clarify, f1.8 would be classed as a wide aperture, which means that the lens is wide open. At f16, the aperture is narrower, allowing less light to pass through.

ISO Speed

The final aspect of photography is film speed, which is measured in ISO. Whilst it does not stand for anything, ISO is basically a universal unit of measurement, and it does not affect the sound that the camera makes. In simple terms, the higher the ISO, the more sensitive the film is to light. Whilst nowadays ISO can be easily changed with each photo, older film cameras could only use one type of ISO per roll, as each new film came with a set ISO speed.

Types of Cameras

Whilst recording the *20th Century Cameras* library, different types of cameras were used. More specifically, those types were box cameras, folding cameras, twin-lens reflex cameras, and SLR cameras (single-lens reflex).

Box Cameras

Box cameras were budget cameras which had few, if any controls. Literally shaped like a box, and initially introduced by Kodak, box cameras would normally have a default shutter speed and a shutter release latch, but sometimes offered the photographer the option of two or three different apertures.

In terms of audio, the only components that physically made a sound were the shutter, when released, the back of the camera, which would open, and the tray inside, which could be removed in order to replace the film.

Twin-Lens Reflex Cameras (TLRs)

These cameras had two lenses, one at the bottom, which was used to take the photo, and one at the top, which gave you an idea of what the photo would look like, and thus allowed you to compose the shot and adjust focus.

Already more advanced than box cameras, these cameras not only allowed you to change focus via the focus ring, but also allowed you to change aperture and shutter speed. Even though nowhere near as advanced as SLRs or DSLRs, these cameras are still sought after by pro photographers due to the character that they lend to photos.

In terms of audio, this type of camera has offered more than the box camera. In addition to the shutter release, back opening and the tray inside, this type of camera also makes a sound when a latch is operated in order to change the aperture or shutter speed. They also normally have a hatch at the top, which opens in order to allow you to look through the top lens.

Folding Cameras

These cameras were very compact, as they would fold through the use of bellows. They would normally allow for a larger selection of shutter speeds and apertures, compared to the box and twin-lens reflex cameras.

In terms of audio, the hatch opening and allowing the bellows to extend made an interesting sound, in addition to the sound of the shutter releasing at different speeds, creating different types of clicks.

Single-Lens Reflex Cameras (SLRs)

These cameras were by far the most complex cameras recorded for the library. They offer different click sounds at various shutter speeds between one second to 1/1000th of a second, timer sounds, ring turning sounds, latch sounds, and more.

AGFA Isolette

1/25s, 1/50s, and 1/200s shutter speed, 120 film, 1950s

Manufactured in the 1950s, the AGFA Isolette was a folding camera using 120 film.

Pressing the small silver button on the top of the camera, towards the left-hand side, opened the front of the device and allowed the bellows to extend the lens forward.

Turning the outer ring around the lens allowed the photographer to change the shutter speed between 1/25s, 1/50s, 1/200s, and manual.

When pressure was applied to a slider on the left-hand side of the camera, the back opened up and allowed the photographer to install 120 film inside.

AGFA Silette I

1/30s, 1/60s and 1/125s shutter speed, 35mm film, 1960s

Introduced in 1962, the AGFA Silette I offers a relatively small array of shutter speeds, ranging from 1/30s to 1/125s, and manual.

The shutter release can be found on the front of the camera, as opposed to most cameras of its time. On the top right-hand side of the camera there is a latch which allows the film to be wound after each photo is taken.

A tab at the bottom of the camera allows the back of the camera to completely come off, allowing the photographer to install 35mm film.

AGFA Box Camera, Unknown model

620 film, 1930s

Made in the 1930s in Berlin, this model of AGFA box camera, which looks similar to the Box 44, is rather straightforward, much like other box cameras.

Its operation was very simple. In order to take a photo, all that the photographer had to do was pull down the small lever on the right hand side of the camera.

Aiglon Atos-1 Reflex TLR

1/8s to 1/150s shutter speed, 120 film, 1950s

A rather obscure TLR camera manufactured in the 1950s in France, the Aiglon Reflex Atos-1 is relatively simple to use. Turning the ring surrounding the lower lens allowed the photographer to change the shutter speed of the camera between 1/8s, 1/10s, 1/25s, 1/50s, 1/100s, and 1/150s.

Once the desired shutter speed was selected, pulling on the lever on the right hand side armed the camera, and then pulling on the lever on the left hand side released the shutter and exposed the film at the back of the camera for the desired amount of time.

On the top of the camera there was a foldable viewfinder. Pulling on it would allow it to expand and it would show the photographer roughly what the camera saw, allowing one to compose the shot before taking it.

Once a photo was taken, the knob on the right hand side of the camera, towards the top, allowed the photographer to wind the film to the next position.

Applying pressure to a small button at the back of the camera, towards the top, allowed the back plate to come off, and revealed the film tray inside.

Atlas No. 2 Box Camera

620 film

I was able to find very little information about this small mysterious camera made by Coronet in England in the 1930s.

Like with most other box cameras, this device is very easy to operate. The shutter release is located on the right hand side of the camera. Opening the back will reveal a tray in which 620 film can be installed.

Beier Beirette

35mm film, 1970s

Made in East Germany in the 1970s, the Beirette camera is rather spartan in its design. The one that was recorded for this library could only record at one shutter speed.

GB Kershaw 110

f/11 & f/16 lens, 120 film, 1950s

The GB Kershaw was a simple but well-made folding camera, manufactured in Leeds, England, in the 1950s.

It has a very simple shutter with a fixed speed, and in order to take a photo, the user had to press a button placed just on top of the lens.

Applying pressure to a slider on the left hand side of the camera allows the back to open, which would then enable to photographer to install 120 film.

Halina Viceroy 'Haking's Super Reflex'

f/8, f/11, and f/16 lens, 120 film, 1960s

The Halina Viceroy is a gorgeous pseudo TLR-format roll film box camera, produced by Haking's in Hong Kong around 1960.

Despite the apparent complexity of the camera for its time, it is rather easy to use. In order to compose the shot, the photographer lifts up the flap at the top, which gives them an idea of how their photo will be composed.

Whilst the focus is not adjustable, we have a choice of three different apertures, and a choice between a default shutter speed, or a manual one. These settings are controlled via the two small knobs placed in-between the two lenses. The left knob can switch between I, the default shutter speed, and B, the manual one. When in I mode, pressing down the shutter release at the bottom left, on the front of the camera, will open and then immediately close the shutter, regardless of when the photographer allows the shutter release latch to return to its original position. In B mode, once the shutter release is pressed, the shutter will remain open, until the photographer releases it so that it may return to its original position. This is used when there is not enough light in a scene, or a special effect is desired,

and so the film at the back of the camera is exposed to light for a longer period of time.

Just like with most other cameras of this time, once the photo is taken, the film must be wound to the next position using the knob on the right hand side of the camera.

Houghton Butcher “Synchro”

1930s

Not much information could be found on the specific model. Most likely made in the UK in the 1930s, this folding camera has a very interesting aesthetic.

Relatively simple to operate, the user had a choice between the default shutter speed, most likely around 1/30s, and manual.

Ilford Envoy

1/50s shutter speed, f/11 lens, 620 or 120 film, 1950s

A very simple type of camera, all that the photographer had to do was place themselves at the correct distance from the subject, and press the shutter release on the top right-hand corner of the camera.

Turning the knob at the bottom of the camera allowed for the top to come off, and for either 120 or 620 film to be installed.

Kodak Six-20 JNR

1/25s, 1/50s, and 1/100s shutter speed, 620 film, 1930s

Manufactured in the United Kingdom in the 1930s, the Kodak Six-20 JNR gives the photographer the ability to shoot at 1/25s, 1/50s, and 1/100s shutter speed, with the addition of a manual mode and a timer.

When the hatch opens and the bellows extend, this camera does not actually have a spring mechanism, unlike other folding cameras in this library.

Kodak Bantam Colorsnap

1950s

Released in 1955, the Bantam Colorsnap was manufactured by Kodak in the UK. It was rather simple to operate, as all the photographer had to do was set the focus via the ring around the lens and press the shutter release located on the top right-hand side of the camera.

In order to pop open the back, a tab on the side of the camera had to be pulled.

Kodak Brownie Reflex

1/30s shutter speed, 127 film, 1940s

Made in the 1940s in the UK, the Kodak Brownie TLR is a very simple twin-lens reflex camera. Allowing you to switch between 1/30s and manual shutter speed, it gives very limited options for photography.

Due to the age of the camera itself, the one that was recorded for the library had a rather varying shutter speed, as the shutter mechanism hasn't aged very well, or is damaged. The upside is that this has produced wild variation when recording the shutter release.

Kodak Instamatic 25

1960s

Manufactured by Kodak between 1966 and 1972, the Instamatic 25 camera is very straightforward. In order to take a photo, the user had to press a small metallic tab on the face of the camera, just above the lens.

Once the photo was taken, the wheel at the back of the camera had to be wound in order to take another photo. Pressing a tab at the bottom of the camera popped open the back

Kodak Instamatic 155x

126 film, 1970s

The Instamatic 155x was manufactured by Kodak, in the UK, between 1971 and 1977. The camera is very easy to operate, as the user just has to press the tab at the top to take a photo, and then wind the film using the lever at the back of the device.

Pulling the tab at the bottom of the camera allows the back to pop open.

Kodak Junior I

Meniscus lens, 620 film, 1950s

A rather charming vintage camera, the Kodak Junior I was relatively simple to operate. Pulling on the tab at the front allowed the bellows to extend the lens outward.

Once fully extended, the photographer had a choice of two shutter speeds. Either default, or manual. The selection was done via a small tab at the top of the lens.

In order to take a photo, the photographer had to press the shutter release found just above the lens.

Pushing a small tab on the side of the camera allowed the back to open, and for 620 film to be installed.

Kodak Six-20 'BROWNIE' Model D

1/50s shutter speed, f/11 lens, 620 film, 1946-1957

Made sometime between 1946 and 1957, the Six-20 Brownie is a workhorse of a camera, built out of heavy-duty sheetmetal and covered in pearl-grained imitation leather, it was designed to last for a long time.

In order for it to last this long, the insides of the camera are pretty simple. It has a fixed shutter speed of 1/50th of a second, though that may vary roughly due to the passing of time. If the photographer wished to use a manual shutter speed, instead of the default one, all they had to do was press down the small lever on the right hand side of the camera, so that it would indicate B, instead of the default I.

The photographer would place the camera against their body, roughly against the abdominal area, and would look through the top viewfinder in order to compose the shot. Once they were ready, they would press the small shutter release on the right hand side of the camera.

Once the photograph was taken, they would then wind the film using the knob on the right side of the camera.

Minolta AL

1s to 1/1000s shutter speed, 35mm film, 1960s

Manufactured in Japan in the 1960s, the Minolta AL is a rather gorgeous camera, which has most of its control incorporated in the lens, rather than on the body, like many other cameras produced around that time.

On the lens itself the outermost ring controls the shutter speed, ranging between 1 second, all the way to 1/1000s, and manual. This allows for varied types of shutter clicks. Near it there is also a control for a timer, which creates an interesting winding noise.

On the top of the camera, towards the right-hand side, the photographer can find the shutter release button, together with the latch that winds the film once a photo has been taken.

In order to pop open the back of the camera, a tab on the left hand side of the body needs to be pulled.

Pentax Asahi Spotmatic F

1s to 1/1000s shutter speed, 35mm film, 1970s

This camera is one of the most complex devices in the *20th Century Cameras* library. The camera used for the library did not come with a lens, which allowed me to record the clean and crisp sound of the shutter opening and closing at different speeds, without it being muffled.

On the top of the camera, on the right hand side, you will find a knob, a button and a latch. The knob allows you to change the shutter speed of the camera, from B (manual) and 1 second, all the way to 1/1000th of a second. Next to it, you will see a silver button, which is the shutter release. Pressing it will open the shutter at the given speed and that will expose the film at the back of the camera. To the right of that you will find a latch. After each photo is taken, the latch has to be wound all the way to the right, which will physically wind the film inside.

On the front of the camera we also have a latch, which serves as a timer. Depending on how far it is wound, once released it will automatically start moving to its original position.

Photo Plait Splendor Anastigmat

1/25s to 1/100s shutter speed, 120 film

A folding camera of unknown origin, perhaps manufactured in France, is one of the more mysterious cameras in the library. Nevertheless, the way in which the camera functions is far more transparent.

On the top of the lens, we have some choice in regards to shutter speed. We can choose 1/25th, 1/50th and 1/100th of a second, along with manual and timer. The shutter release is placed on top of the lens. On top of the camera itself there is also a foldable viewfinder.

Applying pressure to a slider on the right hand side of the camera allows the back to pop open, and for the photographer to install 120 film.

Polaroid Colorpack 2

1970s

The Polaroid Colorpack 2 is very straightforward and simple, as it was marketed to everyday consumers. When the shutter release is open, the shutter makes way for light to expose the film at the back of the camera.

Praktica Nova

35mm film, 1960s

The Praktica Nova was manufactured in Dresden, Germany between 1964 and 1969. Relatively simple to operate, it had a shutter speed knob at the top right-hand side, along with a latch which allowed for film to be wound.

Whilst the camera that I had in my possession had a damaged shutter speed knob, I managed to record the shutter releasing at what seems to be around 1/30s speed.

In order to take a photo, the user had to press the shutter release button placed on the front of the camera, towards the top, at a slight angle.

Additionally, applying pressure to a slider at the right hand side of the camera body allowed the back to pop open, allowing the photographer to install 35mm film.

Voigtlander Anastigmat Braunschweig

1/25s, 1/50s, and 1/100s shutter speed, 1930s

The Voigtlander “BESSA” Braunschweig is one of the more distinguished cameras recorded for the library. It is a folding camera manufactured in Germany, around the 1930s.

The photographer is given a choice between 1/25s, 1/50s, and 1/100s shutter speed, in addition to a manual mode, and a timer. The shutter release is different to most other folding cameras, in the sense that it is extended upwards. Most of the folding cameras recorded for this library had a shutter release just behind the lens, whilst this one is extended.

This feature was most likely introduced in order to allow photographers to take long exposure photos, without introducing shake from directly coming in contact with the camera body.

Zenit EM

35mm film, 1970s

A rather charming camera, the Zenit EM was manufactured sometime in the 1970s in the USSR. The specific camera that I purchased had an issue with the shutter speed knob, and only functioned at one shutter speed.

On the top of the camera, on the left hand side, there is a small silver button. Once pulled out all the way, it allowed enough room in the back for film to be inserted. In order to then wind the film backwards, the button would be pushed down half way. Pushing it down all the way locked the film.