THEY SHALL Not grow Cld

Between 1914 and 1918, a global conflict changed the course of history. The people who experienced it did not live in a silent, black and white world. Travel back in time to experience history with those who were actually there.

From Academy Award-winning filmmaker Peter Jackson ("The Lord of the Rings" Trilogy, "The Hobbit" Trilogy) comes the groundbreaking documentary "They Shall Not Grow Old," presented on the centenary of the end of the First World War.

Applying state-of-the-art restoration, colorization and 3D technologies to century-old footage—carefully chosen from hundreds of hours of original Great War film held in the archives of the Imperial War Museum (IWM)—Jackson has created an intensely gripping, immersive and authentic cinematic experience. The only narration comes from Great War veterans themselves, selected from over 600 hours of BBC and IWM archive interviews, resulting in a gripping account of "The War to End All Wars," told by the soldiers who experienced it.

By restoring the original footage to a standard never seen before, the human face of WWI emerges with vivid clarity through the fog of time. Jackson captures the day-to-day experience of its soldiers and reveals the reality of war for those on the front line: their attitudes about the conflict; their camaraderie and their need for humor amidst the horror; the functions of daily life in the trenches; and what their lives were like during periods of rest.

Using cutting-edge techniques to transform the images of a century ago into footage that could have been shot today, Jackson both remembers and honors a generation changed forever by a global war.

"They Shall Not Grow Old" was directed by Peter Jackson and produced by Clare Olssen and Jackson, with Ken Kamins, Tessa Ross, Di Lees and Jenny Waldman serving as executive producers. The film was edited by Jabez Olssen. The music is by David Donaldson, Janet Roddick & Steve Roche.

Warner Bros. Pictures presents a Wingnut Films Production, co-commissioned by 14-18 NOW and Imperial War Museum in association with BBC. This film has been rated R for disturbing war images.

Distributed worldwide by Warner Bros. Pictures, "They Shall Not Grow Old" will have a special Fathom engagement, on December 17 and December 27, 2018.

Theyshallnotgrowold.movie

Q&A WITH DIRECTOR / PRODUCER PETER JACKSON

QUESTION: You've said "They Shall Not Grow Old" is your most personal film. Can you elaborate on why?

PETER: Well, I mean every film I make is personal to the extent that I always make a movie that I would want to see myself. But this is a different type of personal because my grandfather was in World War I. And when I was growing up, our bookshelf at home was full of First World War books, so it's something I've had an interest in my entire life. Lots of people over the years have asked me about making a First World War film, but interestingly enough, I've never really had a desire to make a Hollywood movie about the war. But when the Imperial War Museum asked me to use their original footage and then we did our tests and we found out how we could restore it, that became the First World War film I felt that I was waiting all these years to make.

QUESTION: Talk about the genesis of the project and how you approached it.

PETER: About four years ago, the Imperial War Museum asked me if I would be interested in doing a documentary for the Centenary of the WWI Armistice. Their only brief was that, while the documentary could be about any aspect of the First World War that I wanted to do, I had to use their archive footage. The Imperial War Museum holds one of the greatest archives of original footage that was shot at the time of the First World War—at least 2,200 hours' worth. The other thing they said is they wanted the footage to be used in a fresh and original way. I went back to New Zealand and began to think how we could restore this 100-year-old footage now with all the computer technology that we have.

People have restored films over the years; that's not a new thing. But have they restored them with maximum computer power? I didn't know what we could achieve because this was

something I'd never ever done before, so I asked the Imperial War Museum to send over three or four minutes, just for us to play around with. And we took two or three months at Park Road Post Production in New Zealand to figure out the restoration pipeline—meaning how to undo all the damage that's been caused over the last 100 years. In many cases, what the Imperial War Museum has is a duplicate, or a duplicate of a duplicate, or a duplicate of a duplicate of a duplicate of a duplicate... So the quality isn't even as good as the original was to start with. There's no one magic button you can press; every fault had to have its own separate fix.

QUESTION: When you first started seeing the output you must have been absolutely delighted.

PETER: Well, I was focused on the technical stuff for a long time, because it was a process of trying to fix each of these individual things. But when it all came together, what really hits you is the humanity of the people on the film. They just jump out at you, especially the faces. They're no longer buried in a fog of film grain and scratches and shuttering and sped-up footage. You just understand that these were human beings. I've said that restoration is humanization because it does bring out the humanity of the people who were there. That was most exciting. I realized that this movie is about bringing these people back into our lives again.

QUESTION: Did you have any moment in looking through footage that was especially profound?

PETER: One particular thing was: when the British captured German soldiers, the German first aid guys—and even those who weren't in the first aid—pitched in and helped the British first aid guys. They were basically these two opposing sides trying to save the lives of wounded men. It didn't matter if he was a British soldier or a German soldier; they were trying to save lives. And there is some incredible film of that, which I had never seen before.

You begin to understand that it wasn't a war of hatred. It was a war where these two groups of men were told that they had to go and fight each other, and I would imagine that no one there would really be able to tell you what they were fighting for. One thing we gathered is that the British soldiers felt that the German soldiers were in the same position as them. They were eating the same horrible food, living in the same terrible conditions, so there was a mutual sympathy between those two sides. They didn't hate each other; I think they felt that they were both equally victims. Things like that certainly surprised me a lot.

QUESTION: Can you talk about using the voices of the veterans to narrate the documentary?

PETER: As we restored the footage and the faces of the men became so sharp and clear, I knew that the audio soundtrack should be just the voices of the men who were there—no historians, no hosts walking through the trenches telling us about the First World War. These men should be the ones describing to us what the war was like. So we went to back to the Imperial War Museum and to the BBC and asked them for audio recordings of interviews or oral histories that they had done with First World War veterans. And surprisingly enough, we ended up with 600 hours of veterans talking, probably about 250 to 300 different men.

It obviously takes a long time to listen to hundreds of hours of audio, but we couldn't really make our movie until we listened to everything. So for probably a year and a half, a lot of the process was watching film, listening to tapes, and slowly discovering what this film should really be. And at the end of it, it felt deceptively simple: this should just be an average man's experience of what it was like to be an infantry soldier in WWI. What these guys are describing are things that my grandfather—or anybody's grandfather or great-grandfather—would have experienced. This film will give you an insight into their lives.

QUESTION: Apart from the narration, the job of adding audio and sound effects was remarkable. Can you talk about that part of the process?

PETER: Well one of the things that people don't realize is that, even in today's movies, a lot of the sound is accomplished in post-production because even though you are recording on the set, the raw sound is usually not that usable. And you also haven't got all the visual effects, which don't come with their own soundtrack. You've got to create it. Park Road Post won an Academy Award for their sound work on "The Lord of the Rings" films, so I said to the same guys, "We need you to do this for the First World War footage." We wanted the full gamut of sounds: from the wind in the trees, to footsteps in the mud, to the jangle of the equipment, to the click-clack of the rifle bolts, to the horse hooves and the squeak of the leather...subtleties upon subtleties, dozens and dozens of soundtracks of different sounds, all built up onto one shot.

The result of that is you do think you're hearing the sound that was heard on the day, and that's what I wanted to achieve. Just as the soldiers saw the war in color, they certainly didn't experience it silently. As best I could, I wanted to give the impression of what sounds they would have been hearing, and that expanded to the soldiers talking. We went to professional lip readers and gave them all the shots we had where you can clearly see soldiers saying something on film,

and they came back with their opinions on what was being said. And we then got actors from the particular regions of Great Britain where the regiment came from to make sure we were very accurate to the accents of the soldiers of the time, because the accent actually becomes part of the rhythm of the speech. It was amazing once we started adding the voices, because that brought the footage to life incredibly well.

QUESTION: Most people's idea of what it was like in WWI is that it was bleak and miserable and traumatic. But for many of these men, it was an adventure, too.

PETER: It was interesting to listen to the accounts of why the guys volunteered for the Army. The movie we made very much reflects the spirit of 1914—when the war breaks out and they're all rushing to the recruiting office. They think it's going to be over within a few months, and they all want to be part of it. Their mates are all going, and they don't want to be left behind. It was about the adventure. I don't imagine hardly any of the guys who were joining up, some as young as 14, thought about the politics of why they were fighting. Or asking, "Is this something I'm prepared to risk my life for?" As one of them said, it was an escape from the boring jobs that they had at home. That is about the best account you could ever have of why young people joined up in the First World War. In the beginning, they didn't see it as risking their lives; they saw it as escaping the boredom and having an adventure.

When you hear the veterans reflecting about it and talking about how it was the best time of their life and how they'd do it all over again...that certainly surprised me. But one thing I kept thinking about as we were putting the movie together is we're hearing the opinions of the survivors—the people who lived to be old men, have families, have jobs, have children and grandchildren. I think if the same questions could have been asked of the people who lost their lives in the war, their opinions about what this war was would be very different from the people that we're hearing in the film.

QUESTION: This film has taken the very first technology used in filmmaking—the hand-crank cameras—and employed state-of-the-art computers and modern filmmaking techniques to restore it. Can you talk about the interesting hybrid of those two things?

PETER: I couldn't help but think that we were bringing the technology of the day to footage that was shot more than 100 years ago. And I often wondered what the cameramen who were there cranking their cameras on the Western Front, many times risking their lives, would have thought

about what we were doing. Being a filmmaker myself, you want your footage to look as good as it can possibly look, and I don't think any of those guys would have liked to have it all scratchy and jerky and full of grain. So I did feel that this was the technology of today coming to the rescue of the cameramen of 100 years ago.

QUESTION: Colorization has been somewhat of a thorny issue with filmmakers in the past. What was your feeling about that in this instance?

PETER: The reason colorization has been controversial in the past is because people have taken films that a director chose to shoot in black and white, and suddenly some company is throwing some really bad, blurry color over them, against the director's wishes. And I completely sympathize. If the director chose not to shoot his film in color then you've got to respect that.

But we were not dealing with that situation, because the cameramen who were on the Western Front in WWI had no choice but to shoot in black and white; they didn't have color film available to them. I believe that if any of those cameramen had been asked, "Do you want to shoot this in black and white or in color?" they would all have grabbed the color film. Absolutely. Because they were there with the task of recording the First World War for the government. They weren't making a Hollywood film; they were documentarians making an archival record of the reality of the war, so they would have chosen to film in color. I have no doubt about that at all.

The thing I learned with colorization, which was done by an American company called Stereo D, is the more time you spend on it, the better the results. We had 300 shots to colorize so having enough time was always the trick. But given the time that we did have, I think we did what we really set out to do—which was to do the best colorization that anyone had ever seen of WWI footage.

QUESTION: I know another challenge you've talked about was the varying film speeds. Can you talk about your process in tackling that?

PETER: It took us a while to figure our way through the film speeds. I had been led to believe that the original footage was filmed at roughly 16 frames a second, but we found out very quickly that was completely wrong. Most of it was around 13 or 14 frames a second, but we also found everything from 10 frames to an occasional 15 or 16, and, very rarely, 17 or 18. You can't bring all those different speeds to 24 frames a second, which is the speed we use now, without knowing

at what speed the original was filmed. It's purely guesswork. We put it through a computer process and came back in the next day and looked at it at 24, and it was either a bit too fast, a bit too slow, or spot on. So it was quite hit and miss to get the speeds right. The computer actually has to create frames that never existed. It takes the frame before and the frame after and it sort of extrapolates from that to create an artificial frame using the material from those existing frames. It was amazing when we got that process working. The results absolutely stunned me. I was very, very excited.

QUESTION: What would you think about expanding the project to include different perspectives—American, French, German...?

PETER: The film from the Imperial War Museum was largely British-focused and the audio from the BBC was entirely from the British perspective. We had 100 hours of film and 600 hours of audio, and there are 10 or 12 movies just within that material, but we decided very early on that we just couldn't cover all the bases. Nevertheless, there are great shots of the Navy, of women who, for the first time, were coming into the workforce, the Colonial troops coming in from all the different parts of the British Empire. There is the ANZAC story, Gallipoli and Mesopotamia, the nursing story... You could make a film out of each of those just with the material I've seen. And then we're not even talking about what's in the French archives, or the American, or the Canadian, or the German archives. There are ample opportunities to explore other aspects of the First World War using the voices of the people that were there.

This film is only one chapter—the British infantry soldiers at the Western Front—but there are many other films that could be made. And I hope we've opened the door to lots of other documentaries along similar lines.

QUESTION: What do you think about the response to the film?

PETER: I think people seeing this movie are having the same response I had three years ago when we first started exploring how we could restore the footage. And that reaction has never left me. We have continued restoring everything the Imperial War Museum sent us, so I'm seeing film coming through the restoration pipeline even today, and every time I see a roll of film, I'm astounded.

I hope one thing the film does is make younger people ask if they had anyone from their family in the First World War. Because I think that's a question that a lot of young people don't bother even thinking about. It's history, it's gone, it's nothing to do with them anymore. But if they see this film and ask their parents or their grandparents, "Did we have any family members in the war?" And your grandfather or your great-uncle says, "Well, my father was in that war." Even though there is no one left from the war itself, you're only a generation away from people who did have a father or grandfather who fought. This may be the last chance to ask those questions and get those stories before they're forgotten. Because in 20 or 30 years, when the next generation dies out, they will be lost forever. So to be honest with you, I hope that is the impact of the film: to inspire younger people to find out about their own family and their own family's history in the war.

QUESTION: That leads us back to your own grandfather's experience. Can you tell us more about how that influenced you in making "They Shall Not Grow Old"?

PETER: My grandfather was in the entire war, from the beginning to the end. In fact, he was a professional soldier in the British Army four years before WWI started. I think he wanted to stay in the Army, but he was declared medically unfit in 1919 because his health deteriorated very quickly after the war. When my father was only 10 years old, in 1930, he was carrying him up the stairs on his back because my grandfather couldn't get himself up the stairs. And he died in 1940.

Unfortunately, I don't have any papers from my grandfather—I don't have any letters, I don't have diaries. I only have a handful of photographs. But, in a way, while I was making this film, I felt that this was my chance to learn what he would have experienced. Because the one thing that I did learn from the 600 hours of audio interviews of veterans that we listened to is how surprisingly similar they all are. They had the same food; they all had to deal with the lice and the rats; and they all had to deal with the shelling. Obviously, they dealt with it in different ways, but that was their life.

THE RESTORATION PROCESS

STEREO D

Co-commissioned by 14-18 NOW, the UK's arts program for the First World War centenary, and Imperial War Museum, "They Shall Not Grow Old" has been created exclusively with original footage from Imperial War Museums' film archive and audio from BBC archives. Utilizing this original archival footage, Stereo D was tapped by Jackson to handle three key phases – transformation, color creation, and stereoscopic 3D conversion – with the goal of breathing new life into these 100-year old stories in an entirely original way, bridging the gap between history and present day.

"Peter's objective with this film was to change the public perception of what life may have been like during the First World War by offering a more human, intimate glimpse into that era," explained Milton Adamou, Stereo D's Head of Post and Colorist for the project. "The public's interpretation of that time is heavily influenced by the quality of the historical footage available; black and white, scratched up, highly deteriorated material that has been ravaged by time. It was our job to eliminate these restrictions by transforming this material to the highest standard, and thus contextualize the historical records in a modern, more vibrant and lifelike way for the first time."

Matt Lee, Head of Film at IWM, said, "They Shall Not Grow Old' is an innovative artistic response to IWM's First World War film archive and offers a new perspective of this 20th-century conflict to a 21st-century audience. It provides us with an opportunity to examine the transformed footage against the black and white source material and discuss how technical and creative experimentation, a constant feature of the film industry, impacts our perception of the film's content. This immersive, digitally enhanced experience will enable audiences to understand the stories of those who lived, fought and died during the First World War like never before."

Stereo D first collaborated with Jackson three years ago on a proof of concept test. During the filmmaking process for "They Shall Not Grow Old," Stereo D worked closely with Jackson's WingNut films, including WingNut Producer Clare Olssen, and historian Pete Connor, particularly in the color creation phase, to ensure historical accuracy at every stage.

The first step for Stereo D was transformation. Upon receiving materials from the hub at Park Road Post, Jackson's New Zealand-based post-production facility, artists completed an initial black and white levelling pass of the original images in an attempt to extract as much information as possible up front. If an image was too bright and overexposed, or alternately too dark and muddled, this was extremely helpful for enhancing the detail. Then came the delicate

process of removing dust, scratches, tears, chemical splotches, and other defects. Because film at the time was fairly primitive, the grain itself was quite large and required removal and restoration; artists were able to smooth out the look of the grain across the board for a level of consistency, adding some subtle grain back in and applying sharpening to shots as needed. Also in the transformation process was the task of retiming the film from the then-standard 13 frames per second, and variations thereof, to today's standard of 24 frames per second.

Following this transformative process was the color creation process, which was informed by historical and contextual information. Connor provided Stereo D with detailed notes for each shot identifying each soldier's rank, uniform colors, what each item should look like, and so forth. In addition, Jackson and his team went to actual locations identified in the footage and took thousands of color reference photos which were later utilized by Stereo D. The actual color process involved painstakingly rotoscoping, or tracing and isolating, each individual component within a given frame in order to apply the desired color for each. Stereo D artists would create a keyframe image for each shot with initial color which would get reviewed by Jackson, Connor and Weta Digital VFX Supervisor Wayne Stables and continue to iterate to achieve the right level of detail. 3D tracking of CGI models created by Stereo D was often used to enhance the quality of facial detail, to make each soldier truly feel alive on screen.

"I would describe the color process as mostly forensic but also creative," shared Adamou. "On one hand we're recreating a photoreal world, striving to provide an accurate interpretation of the environment and the people within it. Everything in the frame is dissected and analyzed, then cross- referenced against records from multiple sources. From the unusually elusive color of the British uniforms, to more obscure items such as a goatskin jerkin we see once in the movie, we painstakingly labored over every detail. Then on the other hand we had some creative freedom to hone in on details that will be visually interesting to the audience. For instance, many of the soldiers wore private purchase shirts or other clothing, which we subsequently varied in color to break up large areas of uniformity."

Once color was complete, Stereo D tackled the final phase of transforming the final content into stereoscopic 3D. Led by Stereographer and Color Compositing Supervisor Russell McCoy, the Stereo D team worked in service of the documentary medium, aiming to make viewers feel comfortable and immersed in the same 3D space where the original camera was standing.

"This film is a wholly unique application for 3D technology, and it raises the bar not just for the 3D medium but also for the documentary medium," explained Mark Simone, Stereo D Producer. This project was different for us because the final product goes beyond entertainment or escapism, it's the world's history and with that comes a certain responsibility to the memory of

those who lived it. Through this film, Peter is unearthing the past and presenting it to the public in a new and exciting way, which is something very special to be part of."

Stereo D was uniquely positioned to tackle "They Shall Not Grow Old" because its core business - creating imagery – combines their proprietary software, technology, and artistry with VFX fundamentals to produce beautiful footage with incredible speed and accuracy. For instance, the level of detail required to rotoscope would have been impossible had it not been for Stereo D's team of 400-plus artists who could produce a quantity and level of accuracy down to the color of buttons or individual blades of grass.

Stereo D's familiarity with addressing some of the common issues that come with stereoscopic conversion – specifically, recreating missing imagery and creating or removing visible artefacts on screen that occur from increasing the frame rate – also proved valuable in the transformation process as similar challenges arose in retiming footage from 13 to 24 frames per second.

Additionally, Stereo D's robust global pipeline was a real asset when it came to accommodating the massive amount of material and detail required to realize Jackson's vision. Managing all three phases of the project provided the opportunity for greater quality control and iteration, as Stereo D artists could shepherd a shot from the original black and white through to the fully restored and colorized 3D version, with the full historical context of the shot in mind to address the project's needs at whichever stage was most suitable. This led to an unparalleled level of quality and detail that shine through in the final product.

"Certainly, mastering the transformation and colorization, especially at this scale, was new for us, but we had both the relevant expertise and the deep talent pool to handle it," concluded Adamou. "From start to finish the Stereo D team was in lockstep with Peter to service his vision of preserving as much historical accuracy and detail as possible, and that's clear in the final film. Viewers can now feel connected to the people, the locations, and the emotions of that era in a way that wasn't quite possible before."

PARK ROAD POST PRODUCTION

Before Peter Jackson could begin work on his ground-breaking new First World War documentary film, "They Shall Not Grow Old", all of the footage supplied by London's Imperial War Museum needed to be restored and revitalized, which became Park Road Post Production's largest ever restoration project.

During 2015, hundreds of hours of footage, scanned from film in the Imperial War Museum's archive, was supplied to the team at Park Road in Wellington New Zealand, who embarked on the mammoth task of restoring the footage which was vital to the aim of giving people a fresh view of what life was like during the Great War.

Park Road Post Production's general manager Dave Tingey said the restoration part of the project was completed over three years and involved a team of up to eight people. "This was easily the largest and longest restoration project we have worked on, due mainly to the amount of scanned footage and the post production processes employed to deliver the final look and sound for the film."

Tingey said his experienced restoration team are proud to have contributed to such an important project and to have a set a new benchmark for film restoration work.

"This demonstrates that old footage can not only be restored, it can be enhanced and used in new ways to tell stories about our history."

Park Road's Picture Manager Daniel Eady said the restoration process involved cleaning up the scanned archival footage, removing scratches and dirt which were present in the images from the original film; de-noising the footage and then re-timing as all of the footage was recorded on hand- cranked cameras.

"Because the footage was not recorded at 24 frames per second we had to re-time every piece of footage, so it didn't look out of place with film and video we see today. Once the cleaning process was completed, we provided versions of all of the footage in black and white to Stereo D for colorization and for Peter and his editorial team to begin looking at the footage."

At the end of the process, all of the restored footage was gifted back to the Imperial War Museum for their use. Park Road color graded the black and white footage then after colorization and the 3D process, completed all the final color work and final sound mixing.

PETER JACKSON DIRECTOR / PRODUCER

Peter Jackson's most highly acclaimed cinematic achievement is considered to be his screen adaptation of J.R.R Tolkien's "The Lord of the Rings" Trilogy. The project kicked off in 1999, with Jackson not only directing the films but co-writing and producing with long-time collaborators Fran Walsh and Philippa Boyens. Among their many honors, "The Lord of the Rings" blockbusters earned a total of 30 Academy Award nominations, winning 17 Oscars, including Best Picture for the final film.

In 2010, Jackson plunged back into Middle-earth directing, co-writing and producing "The Hobbit" Trilogy of films, based upon the enduringly popular masterpiece novel of the same name, also penned by J.R.R. Tolkien. Each film earned around a billion dollars at the worldwide box office, and the trilogy also gathered a total of seven Academy Award nominations.

Between trilogies, Jackson fulfilled a childhood dream, helming the 2005 remake of "King Kong." The film picked up three Academy Awards and a BAFTA Award. Switching gears, he then directed "The Lovely Bones," an adaptation of Alice Sebold's acclaimed best-selling book, released wide in 2010. Stanley Tucci was nominated for an Academy Award, a Golden Globe and a BAFTA Award, all in the category Best Supporting Actor, for his performance in that film.

In addition, Jackson produced, along with Steven Spielberg and Kathleen Kennedy, the 2011 feature "The Adventures of Tintin," which was also directed by Spielberg. Jackson also produced the science fiction thriller "District 9," as well as producing the 2012 documentary "West of Memphis," together with Damien Echols, one of the teenagers falsely accused of the murder featured in the film.

Jackson's passion for filmmaking started early in life. His first feature film, "Bad Taste," was made during the weekends with friends, taking nearly four years to be completed. "Meet the Feebles" followed, starting a long-time collaboration with physical effects guru Richard Taylor.

"Heavenly Creatures," featuring a young Kate Winslet, launched Jackson onto the worldwide stage. For this film, Jackson and lifetime partner Fran Walsh received their first Academy Award nomination for screenwriting. Michael J Fox starred in Jackson's next feature, the ghost comedy "The Frighteners," which was executive produced by Robert Zemeckis.

In 2010 Jackson received a knighthood for his services to film.