

Enduring the Elements

THE LIGHTHOUSE

BY CRAIG LATHROP, PRODUCTION DESIGNER





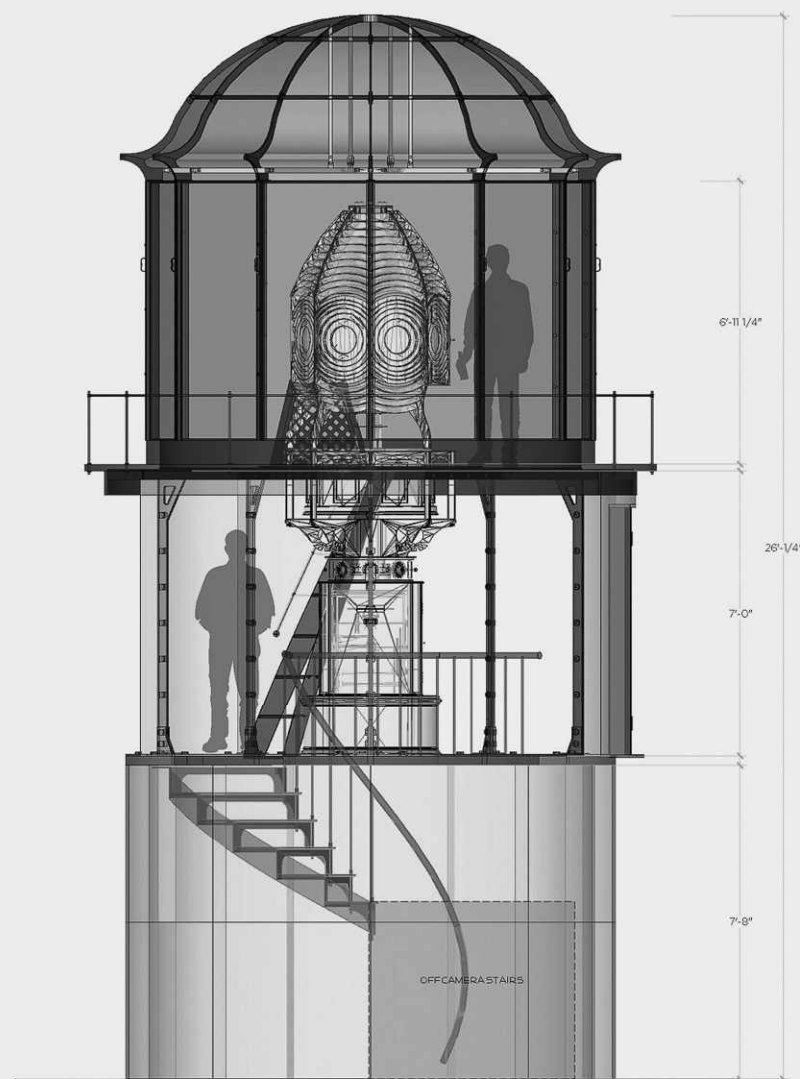
In November of 2017, Robert Eggers contacted me with a new project. A black-and-white film shot in a 1.19:1 aspect ratio. It was set on an island off the coast of Maine in the 1890s, with two lighthouse keepers locked in a battle of wills. I had designed *The Witch* for Rob a few years prior and knew I wanted to work with him again. We had, in fact, been in discussions about another film that had just fallen apart. I was disappointed, feeling that it could be a while before we had another opportunity to work together, when he sent me the crazy brilliant script he and his brother Max had written for *The Lighthouse*. With the other project gone, he now had time to do *The Lighthouse*, and it seemed to be coming together quickly. Rodrigo Teixeira from RT Features was on board and willing to try to get it done in the coming year. But Rob wanted to film in the early spring when the snow would have just melted on the East Coast, and the vegetation would not have burst into leaf yet. We needed a bleak, unforgiving landscape in which to set the story. The clock was ticking. I started doing my research.

Technical Challenges

I looked at hundreds of standing lighthouses, but none of them fit the criteria the film needed. The film required a period lighthouse on a spit of land that could convincingly play as an island, but would still grant easy access. An actual island would be a logistical nightmare that the budget couldn't accommodate. Early research and scouting was not promising, so as the search continued, I started putting together a plan on how to build a 70-foot tall lighthouse, with a 22-foot base, that wouldn't fall over in a windy marine locale.

The next challenge was the Fresnel lens. The lens was an intrinsic part of the story, and a second or third order Fresnel lens from the late 1800s was needed. Most lighthouses from that era have had their lenses removed. In the early days, when retrofitting a lighthouse, they simply smashed the lenses to get them out. Now they are quite rare, and when one is removed, it is moved to a climate-controlled museum. Even if I could find one (there was one in Australia), it would weigh over a ton, so I started designing and trying to find someone

A. *THE LIGHTHOUSE*. BUILT ON LOCATION ON CAPE FORCHU, NOVA SCOTIA. PRODUCTION STILL.



INT. LIGHTHOUSE - OVERVIEW OF TOP

SET # 10-01 DRAWING 1/7

SCALE 1/2" = 1' DRAWN BY M.L. PRODUCTION DESIGNER CRAIG LATHROP

APPROVAL

A

who could build it. I modeled the initial design in Rhino 3D and found Dan Spinella, from Artworks Florida. Dan could make the lens out of brass with acrylic prisms (to cut down on the weight), but he would need more time than the proposed official preproduction would allow.

In December, I flew to New York to meet with Rob, Jarin Blaschke the director of photography, and the producers from A24, New Regency and RT Features. During our meetings, I brought up my dilemma; the Fresnel would be an expensive set piece, and to build a Fresnel lens and meet our timeline we would need to start building it

right away, but the film wasn't even greenlit at the time. I showed everyone my model and discussed what would be involved. To my pleasant surprise, nobody asked me to leave the room! And in a couple of weeks, the initial costs were approved, I began refining the design, and Dan started producing samples for approval.

By January, the location search had narrowed and I flew to Nova Scotia to meet up with Shaun Clarke, the location manager. Shaun had photographed several locations, but Cape Forchu was the most promising. We drove down to Yarmouth to scout it and liked what we saw. Shaun found a lobster fisherman to take us out on the water the next day, and we scouted the approach from the sea. It had everything we needed: eleven acres of black rock and wild rose bushes (brown thorny shrubs until late in the spring), with a 270-degree view of the Atlantic Ocean. All of the exterior buildings would need to be built, but luckily, where I wanted to place the lighthouse, there was a high point of bedrock where I could anchor the substructure. Later that same afternoon, I met with Vince and Dean Pearce from East Coast Scaffolding and Warren Gibbons from Yarmouth Crane to ensure we could get a crane into the site and build the substructure for the lighthouse. The crane could make it through a narrow passage by about a foot, and Vince felt he could supply a tube and clamp substructure, anchored to the bedrock, in the time frame available. He would do the engineering and get back to me right away with a quote. The film had its location.

The Design

Rob is meticulous with his research, which suits me well. I love the research process and am thrilled to find a collaborator who is interested in all the idiosyncratic details from a period. Those details, which are at once familiar and yet strange and specific to a time period, are very transportive. They help put the audience in a particular time and place; they help build the world of the story. That's not to say all period design should strictly adhere to the historical record. It shouldn't. Design is about building the world of the characters, the specific story you're telling; about amplifying the emotional beats and advancing the plot. But

A. OVERVIEW OF THE TOP OF THE LIGHTHOUSE INTERIOR. DRAWN BY ART DIRECTOR MATT LIKELY.

historical accuracy is the approach we took for this story...to a point...

After the Civil War, the US transferred all lighthouse services to the newly formed United States Lighthouse Establishment, the USLHE (they are now run by the Coast Guard). They institutionalized the maintenance and care of lighthouses with an almost military rigor. Reading the manuals and logbooks from the period was impressive. They specifically lay out the daily duties for the maintenance and operation of a lighthouse, which the logbooks indicate were fairly well followed. But a well-maintained lighthouse wouldn't do for this story. This needed to be a remote, inhospitable place, one that would not only mirror the emotional and mental state of the characters, but would help propel them.

So I set out to design and build an old, weathered keeper's house, lighthouse and outbuildings. They needed sturdy bones and a strong silhouette, with a peeling exterior, whose interior was sparse, lacking for comfort, and perhaps beginning to come apart. As the film progresses, the buildings, along with the characters, endure a terrific storm which will tear at the house and the lighthouse keepers. If someone reflected back to the beginning of the film, I would like them to feel the possibility that the house had endured this before.

Along with the house exterior and partial interior (for weather cover), the production would build the exterior of the fog signal house, boathouse, storage sheds and exterior lighthouse all on location at Cape Forchu; while the interiors of the keepers' house, fog signal house, lighthouse stairs, mechanical room and lantern house, plus several small sets would be built on stages in Halifax. A small beach set was also placed in a tank to be shot for the mermaid underwater work.

The house was based on keepers' houses and residential homes from Maine and northern Massachusetts about eighty years prior to the story. I wanted the house to already be old in 1890. Mantle pieces were built whose fireplace openings had been bricked-in, with period cast iron stoves retrofitted in front of them, as a subtle indication of not just the period, but the history of the house.



The paint would be peeling and the floors well worn. It should not be unkempt, but it should not be well maintained either. It was certainly not to the USLHE standard, but it would fit the needs of the characters and story.

The details needed to be there, however. It's been said that people will believe the big lies if the details ring true. To this end, I strove to find the details of this particular world. I discovered that the USLHE specified and made everything from oil cans, tools and lens cleaning kits to flatware and china. This was a boon to the Art Department as we researched lighthouses of the era. They even

B. RHINO 3D MODEL OF THE FRESNEL LENS. RENDERED BY DAN SPINELLA.

C. THE COMPLETED BRASS FRAME IN DAN SPINELLA'S SHOP.

D. THE FIRST POLISHED AND TINTED LENS INSTALLED IN THE FRAME.

made a USLHE-stamped dustpan (not strictly required, but one of the many finds Ian Greig, the set decorator, picked up from a collector). Ian and property master Gerold Schmidt teased out the details from Art Department research in the items they found or made. The compressed timeline was a challenge, but the specificity of the research, I believe, helped to streamline the process.

The Build

Shooting a film in the early spring means you are building your sets in the winter. And the Nova Scotia coast is cold in the winter.

After the initial scout, I stayed in Halifax for an extra day to meet with Matt Likely, the Art Director and an old friend. I had spoken to Matt as soon as I thought the film might shoot in Nova Scotia and was happy to see him. He had started putting together a local crew and had a few key personnel he wanted me to meet. I was concerned that we wouldn't be able to find a crew that could accomplish what was needed in the time available. But my concerns were unfounded. Matt helped me find a team of incredibly talented, hardworking craftspeople who remained positive in some of the most extreme conditions imaginable.

After a short delay, official preproduction began in February, and building began almost right away;

feeding the crew drawings as fast possible. Most of the sets were produced modularly in Halifax and sent down to Yarmouth as soon as the site was ready for them. One day, just before the lighthouse pieces were ready to start shipping to the site, I received a note that the scaffolding crew had stopped working. The tight deadlines couldn't afford a delay, so I quickly gave Vince a call (read: distressed call). He informed me the waves were breaking over the 30-foot rockface to the east, and that the sea spray was freezing and had encased the scaffolding in ice. Ocean water freezes at a much lower temperature than freshwater, but the air temperature had dropped below minus 20° Celsius. So with the site unsafe, everyone was brought back to the shop and we waited a few days for the weather to break. Luckily it did, and we redoubled our efforts to get back on schedule. Every member of the crew was extremely professional. There wasn't a cowboy among them. And they showed me what, with proper safety precautions taken, could be done efficiently, on a miserably cold, wet, windy, snowy spit of land on the Nova Scotia coast. Three nor'easters came through as the crew built and then shot the exteriors on Cape Forchu. During this time, the crew simply—got to work.

When the engineer came back with his requirements for the lighthouse and subframe, he

A. EXTERIOR LIGHTHOUSE ASSEMBLY. DRAWN BY ART DIRECTOR MATT LIKELY.

B. EXTERIOR LIGHTHOUSE WITH THE TUBE AND CLAMP SCAFFOLDING COMPLETE AND THE ASSEMBLY OF THE BRICK CLADDING GETTING STARTED. SET PHOTO.

C. THE LANTERN HOUSE BEING INSTALLED. SET PHOTO.

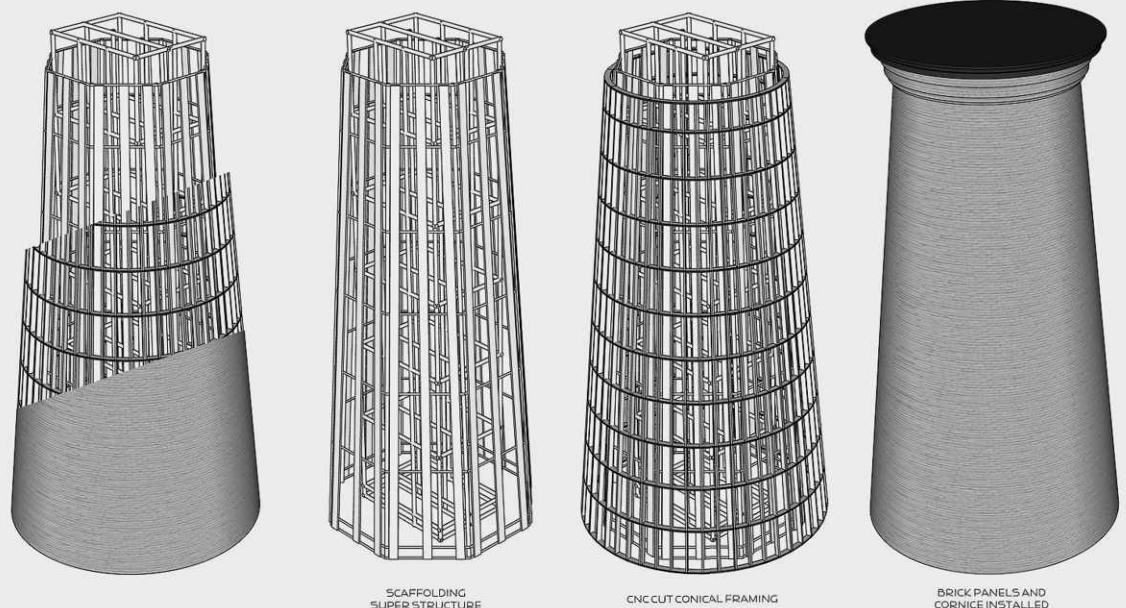
D. BUILDING THE KEEPERS' HOUSE IN THE WINTER. SET PHOTO.

E. FINISHED LOCATION SET. SET PHOTO.

F. EXTERIOR FOG SIGNAL HOUSE ON CAPE FORCHU. PRODUCTION STILL.

G. KEEPERS' HOUSE COMPLETED. BILL GERHARDT, THE HEAD OF THE GREENS DEPARTMENT, DRESSED OUT THE ASPHALT PATHWAYS THAT CRISSCROSSED CAPE FORCHU, INCLUDING THE ROAD THAT RAN IN FRONT OF THE HOUSE. SET PHOTO.

■ EXT. LIGHTHOUSE - CONICAL STRUCTURE OVERVIEW







A. LANTERN HOUSE WITH FRESNEL LENS.

B. THE INTERIOR OF THE LIGHTHOUSE STAIRWELL WAS BUILT ON STAGE IN HALIFAX.

C. INTERIOR MECHANICAL ROOM.

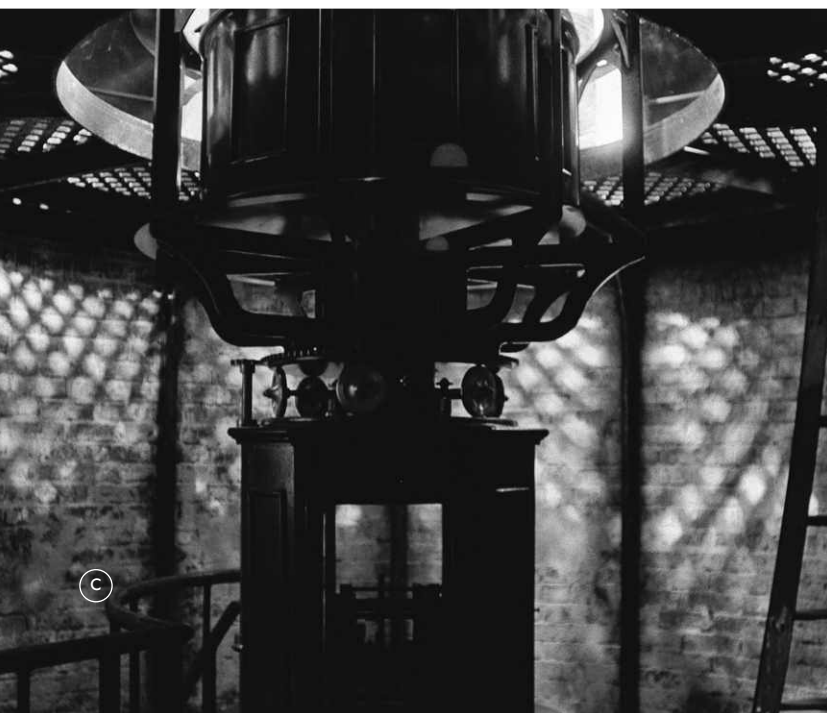
D. VIEW FROM THE PARLOR THROUGH THE ENTRYWAY TO THE STAIRS.

added several tons of concrete blocks as ballast in addition to the 5-foot long steel anchors that were drilled and epoxied into the bedrock. As an extra precaution, he suggested that the crew install four large removable cables to additional anchor points. These would be put up in the unlikely event that the forecast was predicting winds over one hundred kilometers an hour. The cables were up for much of the time the production was on Cape Forchu.

The interior sets were all built on stages in Halifax, and I'm very proud of them all. But I'm happy to say that the drama that the weather provided us on Cape Forchu didn't follow the company to go back to Halifax.

I need to thank everyone who worked in the Art Department, and on the set decoration, property, construction, scenic and greens crews. I wish I could individually list and thank you all. You deserve that.

I would be remiss if I didn't also thank my co-conspirators: director of photography Jarin Blaschke and Linda Muir, the costume designer (not to mention our friend and editor, Louise Ford). Brilliant all. You could not ask for a more exceptional group of people with which to work. And of course, a huge thanks to Robert Eggers, who lead us all through the storm. **ADG**





E

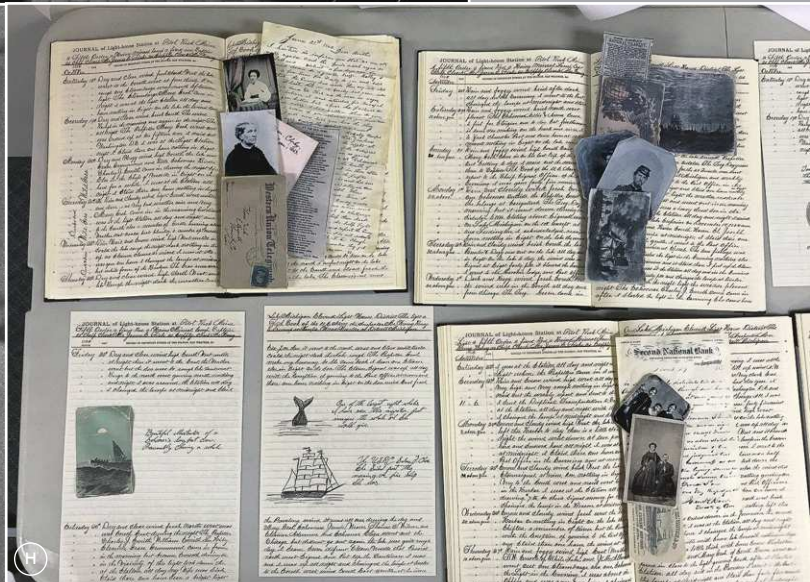


F

Craig Lathrop,
Production Designer
Matt Likely,
Art Director
Mike Ryan Hall,
Assistant Art Director
Trevor Doherty,
Graphic Artist
Ian Greig,
Set Decorator



G



H



I

E. THE KITCHEN/DINING ROOM HALF OF THE FIRST FLOOR OF THE KEEPERS' HOUSE WAS BUILT BOTH ON LOCATION AT CAPE FORCHU (FOR WEATHER COVER) AND ON THE STAGE IN HALIFAX. PRODUCTION STILL.

F. THE INTERIOR OF THE FOG SIGNAL HOUSE, BUILT ON STAGE IN HALIFAX. PRODUCTION STILL.

G. KEEPERS' HOUSE INTERIOR. PRODUCTION STILL.

H. LOGBOOK AND DIARY ENTRIES. GRAPHIC ART BY TREVOR DOHERTY.

I. THE KEEPERS OUTSIDE THE FINISHED LIGHTHOUSE. PRODUCTION STILL.