

For Whom the Troll Dwells

A Legendary Case for
Supplemental Safety
Measures on the New
San Francisco-Oakland
Bay Bridge East Span

2013

Trolls are symbolically linked to the San Francisco-Oakland Bay Bridge East Span Replacement Project in many ways. Renowned for their protective powers, longevity and superhuman strength, trolls represent a history and spirit that deserve to be both commemorated and continued.

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Recommendations
for the Troll
Bridge Program
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EXECUTIVE SUMMARY

In the wake of the 1989 Loma Prieta earthquake, just after repairs were completed on the failed section of the Bay Bridge East Span above Pier E-9, a troll appeared on the upper deck of the East Span. His arrival was a surprise, but the fabricated steel figure was soon accepted as part and parcel of the bridge. With the new Bay Bridge East Span scheduled to open in 2013, and the old span slated for demolition, the troll's fate is unclear. Ideally, this long-serving guardian would be retired to a place of honor, and a new troll welcomed onto the new bridge. Such action would be consistent with a longstanding tradition that recognizes trolls for their superior strength, longevity and protective powers—all characteristics for which the new East Span of the San-Francisco Oakland Bay Bridge is designed as well.

HISTORY & SYMOBOLISM of TROLLS

The first legends in which trolls appear were recorded over a millennium ago in medieval Scandinavia. They appeared frequently in the annals of Norse mythology, where the word “troll” was associated with magical enchanters.¹ From these origins, trolls worked their way into the folklore of diverse regions. In Denmark they were imagined as hook-nosed humpbacks called “troids,” while on the Shetland and Orkney Islands they became known as “trows.”² Today, the mythology surrounding trolls is so vast that no one definition suffices. Instead, a few critical features bear mentioning.

Physically, trolls have been described as being any size or shape. Two consistent features are their great age and enormous strength.³ But perhaps the most important characteristic is their intolerance for light. Indeed, many tales recount how trolls turn to stone when exposed to the sun. As a result, trolls hid within the Nordic landscape. They were thought to live in caves and forests, beneath bridges, or underwater. If they were caught swimming or strolling at sunrise, they turned into massive rocks, which formed beautiful islands and mountains.⁴

The trolls of Norse mythology shaped the landscape in other ways, too. Trolls were known as master builders, and skilled craftsmen. Metalwork was their specialty.⁵ And indeed, many stories recount how trolls were hired to speed along special construction projects.⁶

Although there are tales about trolls and humans sharing and doing favors for each other, trolls generally are considered to be solitary and anti-social.⁷ This may explain why, in Norse mythology, trolls

¹ Terence H. Wilbur, “Troll, An Etymological Note,” *Scandinavian Studies*, 30.3 (1958): 243-262.

² Carol Rose, “Troll,” *Spirits, Fairies, Gnomes and Goblins*, 1996, 316.

³ Relmund Kvideland and Henning Sehmsdorf, *Scandinavian Folk Belief and Legend* (Minneapolis: University of Minnesota, 1998).

⁴ Lise Lunge-Larsen, *The Troll with no Heart in his Body and Other Tales of Trolls from Norway* (New York: Pantheon Books, 1999) 17.

⁵ Rose, 316.

⁶ Lone Thygesen Blecher and George Blecher, *Swedish Folktales and Legends* (New York: Pantheon Books, 1993).

⁷ Ibid.

were thought to guard great treasures, which glowed brightly at night.⁸ This stereotype was most famously adapted by J. K. Rowling in the *Harry Potter* series, where specially-trained Security Trolls guard key places and objects in the wizzarding world.⁹

Trolls' protective powers make them comparable to tomtes—another class of creatures from Scandinavian folklore. Like trolls, tomtes were skilled in magic and tool making. They could be kind and helpful, but also malicious and ornery. And they lived for centuries, making loyal guardians. Tomtes, however, are associated exclusively with hearth and home. Every family in Scandinavia was supposed to have a tomte on its farm, and was obliged to repay the tomte's loyalty by leaving porridge in the barn to feed him.¹⁰

TROLLS and BRIDGES

Trolls typically are associated with bridges rather than barns. But where does this association come from? One explanation is that trolls must live under bridges because they are too big to fit anywhere else.¹¹ Another explanation holds that bridges appeal to trolls because they provide shade from the perilous sunlight. In regions where trolls were thought to be amphibious, perhaps it was natural to imagine that they patrolled key river crossings. This image of the bridge-dwelling river troll in particular was popularized by the Rowling books.¹²

The most authoritative source on the symbiosis between trolls and bridges comes from the tale of *De tre bukkene Bruse* or "The Three Billy Goats Gruff." This story, which appeared in the very first anthology of Norwegian folklore, was first translated into English in 1859.¹³ Since then, the bridge-and-troll saga has become an international classic, having been re-written and re-told in hundreds of storybooks.

There are also numerous real-life examples of bridge-dwelling trolls. The Bay Bridge troll is foremost among these. Standing 18-inches tall, the troll has large horns, carries a spud wrench, and is made of steel. The statue, designed by local blacksmith Bill Roan, was affixed to the upper deck of the old bridge by a team of ironworkers who helped repair the East Span after the Loma Prieta earthquake.¹⁴

The Bay Bridge troll appeared in secret, without Caltrans' approval. But an article in the *San Francisco Chronicle* brought him to public attention in early 1990. Since then, the troll has garnered considerable local popularity. He has been featured in the *New York Times*, and even has his own Facebook page.¹⁵

⁸ Rose, 316.

⁹ J. K. Rowling, *Harry Potter and the Prisoner of Azkaban* (New York: Scholastic, 1999).

¹⁰ Carol Rose, "Tomar," *Spirits, Fairies, Gnomes and Goblins*, 1996, 316.

¹¹ Lunge-Larsen, 17.

¹² J. K. Rowling, *Fantastic Beasts and Where to Find Them* (New York: Scholastic, 2001).

¹³ "Three Billy Goats Gruff," *The Oxford Encyclopedia of Children's Literature*, Oxford University Press, 2006, *Answers.com* 14 Aug. 2013.

¹⁴ "Bay Bridge History Timeline," *BayBridgeInfo.org*, Bay Bridge Public Information Office, 17 Aug. 2013.

¹⁵ Shoshana Walter, "A Small Iron Squatter Who's Soon to Be Evicted," *New York Times* 2 Sept. 2011: A19A.

His fame is perhaps well deserved. Indeed, the Bay Bridge troll is credited with keeping mayhem at bay for the past 24 years.

Other famous infrastructure projects also have guardian trolls. For instance, Seattle's George Washington Memorial Bridge (also known as the Aurora Bridge) has the famous Fremont Troll, which patrols the underpass on North 36th Street. Sculpted from steel and concrete, and designed to look like a "grumpy old man," the Fremont Troll (named for the Seattle neighborhood in which it is located) is large enough to climb on, and too big to have snuck onto the scene. Rather, the nonprofit Fremont Arts Council commissioned the statue in 1990, in an effort to revitalize the blighted underpass. Today, the troll provides a place for children and adults to scramble and sit.¹⁶ This violates the traditional notion of trolls as solitary creatures, but has doubtless contributed to the statue's popularity.

Norway's most famous highway also boasts its resident trolls. The Trollstiegen road runs up a steep mountain and crosses the Stigofssen falls more than 1,000 feet in the air. Completed in 1936, it is still lauded as an impressive feat of engineering. Moreover, it is the only road in Norway to be outfitted with an official "Troll Crossing" sign.¹⁷

POLICY RECOMMENDATIONS

The fate of the Bay Bridge Troll has become a cause of concern in light of the anticipated demolition of the original East Span, and its imminent replacement with a new bridge. The Bay Bridge Public Information Office has promised that "[w]hen the original East Span is demolished, the troll will be relocated."¹⁸ But it is not yet clear where the troll will go. And there may be some misgivings about separating him from the bridge that he has guarded for so long. In fact, given that the troll has been protecting the old bridge from damage for the past 24 years, it is entirely fitting that part of the bridge be preserved both in his honor and the honor of those who worked to restore the bridge to safety after the upper deck collapsed.

The Project Management Team recommends that the Bay Bridge troll be preserved *along with* the upper deck beam from the deck section above Pier E-9 on which he now resides. In this way, the troll can relocate to a safe and shaded spot in the newly refurbished IERBYS building without ever having to leave his niche on the beam.

While no causal relationship can be established between the presence of the Bay Bridge troll and the absence of any earthquake-related interruptions to the Bay Bridge's service during the past 24 years, the correlation cannot be denied. Following the Latin principle, *Primum non nocere* (First, do no harm), the Project Management Team further recommends that another troll statue be created to guard the Bay Bridge; installed on or near the new East Span, this new troll may provide a possible extra measure of safety for the new East Span itself, and for motorists, bicyclists and pedestrians crossing the new bridge.

¹⁶ Gabriel Campanario, "20 Years Later, Fremont Troll Abides," *The Seattle Times* 23 Nov. 2010.

¹⁷ *FjordNorway Travel Guide*. Bergen, Norway: Fjord Norge AS, 2013.

¹⁸ "Bay Bridge History Timeline," op cite.

The popularity of the original Bay Bridge troll suggests the public may like to see a troll on the new bridge as well. Meanwhile, ironworkers may be looking forward to crafting a new troll in celebration of the new East Span. In any case, there already are indicators of troll or troll-like activity on the newly constructed span. A string of four-toed claw-prints have been discovered on the westbound road-deck. And, fittingly, it appears that these tracks can be seen only at night.

The Project Management Team recommends that this new Bay Bridge troll, like its predecessor, should be made of steel. The new troll should be housed in a location properly covered and shaded from the sun, to be seen only by those who seek him out. In accordance with Bay Bridge tradition, the fabrication should be performed as a rogue act, either by union ironworkers from the Bay Bridge project, or by a West Oakland group such as The Crucible. The TBPOC simply should make known that the Committee and its constituent agencies will respond permissively to an unofficial project of this sort, pursuing a policy that might best be described as benign noninterference.

The inauguration of a new troll could create another opportunity to celebrate the long-anticipated completion of the new Bay Bridge East Span. It bears noting that the installation of the original troll was itself considered a sort of topping out ceremony — another Nordic tradition that, like the troll, has spread across the globe. Trolls are not usually present at topping-out ceremonies, of course.¹⁹ But what better way to commemorate a structure as strong, long-lasting and protection-giving as the new Bay Bridge East Span — and provide fun for current and future generations — than by “topping out” with the installation of a new troll in a shaded spot beneath the span?

¹⁹ John V. Robinson, "The 'Topping Out' Traditions of the High-Steel Ironworkers," *Western Folklore* 60.4 (2001): 243-62, *ProQuest*, 17 Aug. 2013.