

The Puracon Factor: underwater wizardry

Producer/director Mick Brun has spent much of the last 25 years above and below the waters of the Atlantic Ocean. At first in his native England where he worked on the underwater scenes of films such as **Thunderball** and later in his new-found Canadian home where he worked on a variety of documentaries dealing with the navy and the sea. This nautical love led him to begin work on a feature project called **The Puracon Factor**, an adventure film that features Russian spies, shipwrecks, evil villains, and a heroic Orca whale.

It was a long process bringing this project from idea to production stage and Brun ultimately opted to keep entire control of the project, turning down funding from Telefilm in favour of raising the almost \$2 million budget primarily through local investors in the area of Chester on Nova Scotia's south shore. This has given him considerable artistic freedom although not without worries about balancing his books.

The technical challenges which the film presented were considerable and a good deal of pioneering work had to be done by many members of the crew. About one third of the film takes place underwater (and another third is shot on the water) and this footage was shot both on location at Liscombe on the eastern shore where the ship-wrecked "Fury" lies; at other locations in Nova Scotia; in aquariums in Niagara Falls and Vancouver; and, most importantly, in a specially constructed underwater studio complex in Chester. At the heart of this studio is a 40' by 32' by 15' deep tank in which were constructed five of the principal sets of the film. The tank was completed and filled with seawater on Sept. 10 and two days later fell apart, destroying the production's truck and almost sweeping two yachts out to sea. It was reconstructed, this time using 16" girders all the way around to prevent a recurrence.

The main sets in the tank were that of the shipwreck, the ship's hold, and an underwater computer complex that houses the villain's operation. These were built by a crew of carpenters, painters, and welders. The footage was shot by d.o.p Paul Van Der Linden in 35mm on an Arriflex 3 in a special underwater housing complete with closed-circuit video-system. It was mounted on a special stripped-down head on an aluminium tripod to combat the effects of seawater. The floor of the tank even had a built-in track for dolly shots underwater. In order to function properly the crew had to wear 110 lb. harnesses in addition to equipment so that they would be able to walk upright in 15' of water rather than having to swim. Illumination was provided by a large overhead grid of lights which

could be raised and lowered to adjust the light level.

Many technical difficulties were encountered during the actual production. On the first day of filming it was discovered that the paint which had been used to simulate rust on the plywood set dissolved in seawater, not only spoiling the effect but also dramatically decreasing the visibility in the water. The tank had to be drained, everything thoroughly dried, repainted, dried again, and finally reflooded. This highlighted the need for extreme cleanliness in order to maintain visibility in the tank — and showers became mandatory before entering it. In the fall, under the influence of hurricane Gloria, there was considerable rainfall in the area. This had the effect of making the seawater close to shore very cloudy. Lines had to be extended far out into Mahone Bay in order to get clear water. Huge rocks covered with kelp and seaweed were imported into the tank to give it a natural appearance.

Delays forced the continuation of filming through November and December. Water temperature in the tank dropped to 31°F, distinctly inhospitable particularly for lead actress Patty Talbot, who, for script and continuity reasons, could not wear a hood or

gloves. Giant Teledyne propane swimming-pool heaters and special filter units had to be shipped at the last moment from Ontario to bring the water temp up to a workable 68°F.

Another challenge involved converting a 120' decommissioned scallop dragger from Riverport, N.S. into a Russian trawler-cum-spy-ship. This involved repainting of the ship as well as constructing radar masts and dishes and sailing the whole improbable vessel back and forth around Tancook island.

Undoubtedly the most complex technical issue in the film was the construction and operation of "Nina", the 16', 1,300 lb. Killer Whale (or Orca) who is the star of the film. Prototypes were built of styrofoam and fiberglass based on Brun's observations of the anatomy and movements of Orcas at Marineland in Niagara Falls and the Vancouver Public Aquarium. The model's moves emulate the typical "humping" pattern of swimming whales and can spout through her blowhole. After consulting with the crew which built the shark from **Jaws**, a hydraulic system was constructed which would give the whale realistic motion. "Nina" was operated either by being pushed by a 40' Cape Islander fishing boat for long shots, or hand held underwater by two specially trained divers for closer shots.

Other challenges involved staging two explosions on the underwater wreck, both of which unleashed a flood of debris, and a complex scene all in one shot which involved a falling yard-arm trapping the lead actress rescued by the Orca who lifts the yardarm with its snout. The various complicated logistics required a marathon 18-hour session to shoot. Fatigue and cold were also problems and the difficulties of working underwater for 10-14-hr. days. This dictated that warm-up, dry-out, eat-something sessions be scheduled every 1½ hours.

Brun's long-time involvement with the navy also bore fruit in that certain scenes were filmed aboard the HMCS Skeena. This is the first time that a Canadian Navy ship has been showcased in a feature film. Another major sequence was filmed in the legislative library of Province House, the Nova Scotia legislature.

Brun is now cutting **The Puracon Factor** in Toronto and it is slated for completion later in the year. Despite the work, cold, and trials and tribulations of the production, he told me he is already at work on another project to be shot in Nova Scotia which will feature — guess what? — lots of underwater scenes.

Christopher Majka •

• In **The Puracon Factor's** underwater tank: filming the drowning of Mark, played by John Dunsworth; below, lead Patty Talbot prepares to dive



photos: Christopher Reardon

