A paper written and delivered by Conrad Byers

One of my areas of interest in marine history and research is the 19th Century's South American Nitrate Trade. The following text is part of a presentaion I made to the Annual Mariner's Symposium in Bath Maine.

Pisagua- "Rise and Fall of a Nitrate Port"

Long forgotten to the modern world, like the names of the great wind ships that once served her, Pisagua rests today at the cliff base of the Atacama Desert, slowly returning to the nitrate dust that created it. Formerly Pisagua was a major nitrate port whose geographic position of Lat. 19 32' S., Long. 70 15' W., was once the chart point steered for by countless sailing vessels of all nationalities. In its hey-day, Pisagua was the support town for over ten thousand people, all in one way or another working for the Nitrate Industry. From the mid-1800's to the First World War, nitrates or "salitre", as it was known in Spanish, held the value and strategic importance of today's petroleum. This mineral, along with a nitrogen-rich sister substance known as 'guano', derived from the 'droppings' of the Guano bird, were much sought after sources of fertilizer for the over-worked farms of a hungry Europe. As well, certain grades of 'salitre' were used as the prime ingredient in gunpowder,.that other necessity of 19th, Century Europe. Thus, it is not difficult to understand that whoever

controlled the nitrates and its distribution stood to gain enormous profits, as well as considerable political power.

The history of Pisagua is the history of Nitrates. The town's creation and history owe nothing to attractiveness of climate, quality of soil or geographic position. Like the cry of gold in the Yukon or in the 'out-back' of Australia, the cry of nitrates lured men, to the barren desert geography that is Pisagua. This town lies naked on a narrow strip of land wedged between the blue Pacific and the base of 400 meter cliffs of parched sand dune. It has never been known to rain there and not a blade of grass or even a cactus, break the monotony of the dry landscape. Yet, this town has a history of human occupation which stretches all the way back to the Incas.

The power of nitrates to make plants grow was certainly well known to the Incas. They established sites in the Pisagua area for the excavation of both guano and nitrates and had it carried inland on the backs of slaves and llamas to cultivable areas. So important was this commodity to their empire that Inca chiefs placed the death penalty on anyone rash enough to kill a Guano bird or steal from the nitrate pits!

Then came the Spanish and the secret of nitrates was discovered by a European nation. Although the primary interests of the conquistadors was gold, succeeding generations of Spanish colonists quickly learned the value of nitrates in local cultivation. By the middle of the 1600's, the value of these nitrates for use in explosives was being realized. Shipments were begun to Spain, and with these shipments came the rise in fame and wealth of

Pisagua and her many sister ports, all the way from Calloa to Antofagasta.

In the Wars of South American Independence and the subsequent creation of new nations, nitrate deposits and their loading ports were a primary factor in the drawing of boundaries. They were as well, the source of many future disputes and of continuing animosity between these various countries.

The port of Pisagua was, in the original division, a part of Peru. Today it flies the Chilean flag and has done so since the day it was 'liberated' from Peru, in the war of the Pacific in 1878. Even then, Pisagua was a well established nitrate port, producing enough wealth for its investors to build one of the first railways in South America, connecting it with the mining towns of the hinterland. After the coming of Chilean control, foreign investment and technology were encouraged. The railway and some of the largest mines were really owned by English companies. "North and Morrison" being principal among them.

The British financed railway, which lasted into the early 1950's, demonstrated a feature that was somewhat of an engineering marvel. The steep cliffs which suddenly fall away from the dry 'Pampa' to sea level at the port's waterfront, made it impossible for any locomotive to pull itself up such a grade. The engineering solution was to build two sets of track down the sand cliff face leading from each other at the top, like the sides of an isosceles triangle. A train of nitrate cars would be sent down one side, attached by a cable lead around a capstan affair at the top and on down the other track, to a train of cars filled with water and minning supplies, brought in by ship.. A liberal use of mechanical

brakes and a system of narrowing tracks to slow descent, enabled a sort of counter balanced 'teeter-totter' railway to be operated.

The railway was actually the vital link that made the port viable. Everything, including drinking water, had to be imported into Pisagua and the minning area in the interior. The logistics of supplying over ten thousand working people amid one of the world's driest regions must have been quite staggering. Most of the water and food supplies came in by sea from the oasis port of Arica, one hundred kilometers to the north. Most of the construction timber used was sailed in from American West Coast Ports. However, nearly every vessel that entered the anchorage of Pisagua, brought some tangible article of use to the town.

It could be argued of course, that all supplies brought in were not in the nature of necessity. Yet, that opinion depended on whether you looked through the eyes of a miner, sailor, or genteel Master's wife. The life style of Pisagua in those days was very much akin to that associated with life in a gold rush town. It was a port whose beach collected the human 'flotsam and jetsam' of the world's maritime nations. It was a town whose secondary industry was the cultivation of bars, brothels and crimpers. It was the first land often seen by weary sailors after a three month voyage from Europe around the killer, Cape Horn. Thus, even the dusty streets of sun-baked Pisagua would look good to a sailor that had money in his pocket and the strength to purchase there the many vices for sale. For those interested in such details, Pisagua was known to have a very famous brothel, in which resided over forty girls of many nationalities. The star attraction was a beautiful German fraulein, who was said to entertain just captains, and only occasionally first mates.

The international influence of Pisagua's past is readily discernible by viewing the cemetery just north of the town. Its wooden crosses, planted in sand, bend to the Pacific breezes with ghostly bleached-out carvings that bespeak the names of many a nation's wondering son. Often those lying beneath the sand were themselves victims of Pisagua's international connections, for

about the year 1904, a plague was brought ashore from one of the sailing vessels and hundreds died before it ran its course.

Although Pisagua didn't possess many of the natural amenities found in numerous other world ports, it did offer to a ship's master some redeeming features. Set in a horse-shoe like indentation in an other wise unbroken shoreline of ocean based cliffs, the port provided good protection from most winds. Also, vessels could anchor close inshore in 15 to 20 fathoms of water, which made possible a short haul from shore to ship for cargo launches. In addition, the port provided the benefits of a British Vice-consul, a Lloyds of London agent, a telegraph office, and a hospital.

The hospital, although not renowned for its hygienic conditions, was undoubtedly at par with others of its day. The very existence of possible medical attention of any sort must have come as a blessing to many a ship's master ill-equipped to handle the inevitable ship board accidents. Hospital records show a high rate of amputations of feet, toes, and fingers, all due, no doubt, to gangrene setting in after injuries of frostbite and falls sustained by sailors in their rigorous passage around Cape Horn.

The procedures for discharging and loading in Pisagua were typical of methods used in all South American West Coast Ports. Due to the great depths of inshore waters and the lack of readily available timber, long wharves proved impractical. Instead, vessels were discharged and loaded by launches, which in their turn were discharged and loaded alongside moles. This meant the job of loading a vessel with nitrate was a long, labor intensive operation, generally always handled by native workers. The work began in the rail yard where powdered nitrate would be shovelled into 80 kilo burlap bags. Children and old people were employed sewing shut the bags and stencilling them with the initials of the country of destination. The men of youth and strength, always moving on the run, with bags carried on the small of their backs, would deposit them on mule carts, which would carry them to the moles. From there they would be loaded onto launches, usually

holding from 200 to 400 bags, and then rowed to the ships by eight men. Bags were hoisted aboard in nets, generally with a great rush and lots of yelling and cursing. The attempt was always made to unload quickly before launches leaked enough water to cover floor boards and contaminate the cargo. In the ship's hold there were only three natives to handle the bags, and only one of these men actually placed them. They were placed in a sort of pyramid and once set would harden into a solid mass that even the worst of storms could seldom move. The man who placed these bags was an important person in the hierarchy of working men in a nitrate port. He was especially strong and tall, usually a native of southern Chile, and what little there was of respect to be had in a rough and wild seaport town, he got. Men never walked in front of him, and when he gave a command, men moved at the jump. After all, a man who could work day after day in the heat and dust of a nitrate hold and in effect load an entire vessel by himself, was no man to annoy!

Today, the port of Pisagua stands in name only. Its present population is down to less than two hundred people of mixed ancestry now surviving mainly on the local fishery. Some live by servicing a small detachment of marines tending a radio station guard post, while a few 'old timers' stare out their final days on a miniscule government pension. Pisagua lies nearly abandoned, like its railway station with no tracks, forgotten in the sun. Sounds of the surf from the empty bay echo through the streets of boarded-up bars and stores, and on into the deserted corridors of the old seamen's hospital. On a rise above the town, a fine old clock tower still faithfully marks the passing minutes. On the main street a beautiful theatre that once provided entertainment for international audiences, stands dejected in dust and cobwebs. Difficult to visualize today that empty hall, once ringing to the great voice of Curuso, as it did during an engagement in 1920. But then nitrate was Pisagua's gold. Soon the bubble was to burst, marked by the last clank of the capstan and the fading echoes of the shantyman's song. Time then stopped for both Pisagua and the great fleets of

sail that courted her. The 20th Century now simply sails on with hardly a notice or a rememberance of either.

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