

Surface Tension

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Descent

At 10.17 a.m. in 1895, in Trieste, a young woman fell from a 3rd storey window. Sitting in a cafe opposite, and drinking his third pastis of the morning, was a 17 year old student named Marconi. His meticulous notes on the event, which survive in a dappled notebook that now sits in the city museum, are unassuming. Unsurprisingly, given his age and literary ambitions, they focus largely on the aesthetic qualities of the morning, and the beauty of its climate. Yet, the meteorological studies that filled the young man's head create a singular moment of inspiration, a strange and hallucinatory cross-pollination which constitutes a moment where beauty inspires application, where practicality flows from aesthetics.

Marconi records that, on the 13th December 1895, he had woken in a bar near the docks (fig. K). His face, he says, adhered to “some unthinkable filth” that coated the table he had been using as a pillow, and his brain seemed to “be melting from [his] ears”. He appears to have woken like this before, if the off-hand way in which he records the event can be trusted. Upon leaving the establishment, whose name is not recorded, he began to walk back to his quarters at the University. His notes offer no explanation as to why he was distracted from this endeavour by an early-morning pastis. However, it must be pointed out that during the period the belief that “the hair of the dog” cured a hangover was still widely held. This seems to have been an extension of the equally ridiculous contention that, in attempting to cure a sword-wound, the destruction of the weapon in question was desired.

The day, he writes, was a fine one. An area of high pressure was sitting above the city, no doubt related to the warm Aegean current that still brushes the shores of the city during December. The air outside the

cafe, adjusted for the fact that the early-morning sun must have been warming his crude thermometer somewhat, and translating into a modern measurement the arcane and Alchemical system he used, appears to have been 11 degrees Celsius. The air was exceptionally clear, and the low angle of the sun threw the shadow of his pen and drink onto the wooden table with “incredibly acuity”. The fact that he was able to read the inscription on the corroded façade of the building opposite - “Profundum Ago” - attests to this.



Fig. K - Trieste, 1905; site of the bar where Marconi awoke.

The notebooks are, as a rule, given to over-elaborate description of climactic conditions. That these dry descriptions are generally placed in immediate conjunction with more poetic descriptions should come as no surprise; not only did the man in question possess some literary ambition (which appears to have been founded more on hope than talent), but the strict academic code that separates poet from scientist had not yet been imposed. Thus, the 10 pages of closely-written notes that Marconi wrote that morning are not exceptional for their unusual style. They are exceptional because, on page 5, a young woman falls from the third story of the building opposite.

Various historians have attributed this passage, at least in part, to the shipment of opium that arrived in Trieste on the 10th December 1895, some of which must have made its narcotic way to the bars on the docks. However, it has now become clear that the veracity of what Marconi recorded that morning cannot be doubted.

The terminal word of the line “as the clouds billow” marks the moment at which the girl begun her fall. This word is the fourth word of the third line of the 5th page. Although it is obvious that she must have finished her descent before Marconi was able to finish the fifth word - “down” - his notes stretch the moment to a length of five pages. Thus, the reader is treated (if this is, indeed, the correct term) to a disturbingly slow account of her terminal descent. Given the time of year, it is unlikely that the window would have been open, but not impossible. Similarly, it is unlikely that the girl did not hesitate on its sill. These elements, however, must remain unknown. Instead, it is the singular image of the falling girl that demands Marconi's attention.

He turns first to the girls hair – brown - and nightshirt - white. These, at the instant of leaving the window (fig. Q), were flung back by the wind into “streamers and rivers” of cloud, seemingly lusting for the safety of the room but “chained to their murderous keeper”. The girl throws a shadow onto the wall behind her, a shadow made precise by the calm of the morning. As it is pulled behind the body of the girl, its form fractured by numerous window frames, Marconi is sickeningly

fascinated by it. For the first two thirds of the fall, and therefore the first 2 stories of the building, it is all he writes about.

The air, roaring past the girl's body, creates a rippling in her hair and nightshirt. Seen in the shadow she casts, the ripples that reach the end of the fabric and hair are recorded as forming "discrete and hermetically separate clouds" from the end of each material. A similar effect can be seen in the behaviour of a brandished whip, in which the very tip of the flail appears to curl around itself. Marconi, his head filled with meteorological concepts and befuddled by pastis, instantly applies the phenomenon to fluid motion, and specifically to cloud formation. He suggests, although the hallucinatory nature of this paragraph makes it difficult to be certain, that if the woman's nightshirt and hair had been made of water vapour, they would have formed liquid droplets with every crack.

This is important. In 1895, the world lacked a detailed knowledge of the processes involved in cloud formation. Marconi's own work had, to this point, focused on analysing the movement of air masses over mountainous regions. Specifically, he had been seeking an explanation for the curiously linear clouds that form in the wake of the Alps. It is in this moment that he stumbles upon such an explanation – here, as the air curls around the metaphoric mountains of the girls body, her nightshirt acts as a visual representation of the behaviour of such air masses.

Impact

As the girl reaches the tops of the windows of the first story, Marconi turns his attention away from her shadow. There are 3 sentences between this point and her impact.

The first occupies 2 pages, and is a rambling account of the girls beauty. At times, this sentence veers into poetry, and its lines are scrawled in a hand that can barely contain the desire of it's owner. Carried away by a conceit based on Meteorological metaphor, Marconi compares the girls

jet-black eyebrows to cirrus clouds, her fingers to “Black Forest icicles”. Her legs mirror the stunning vistas of a bifurcated mountain range, and her breasts the “rounded, secretive” peaks of the “erotic Alps”. Encountered individually, these metaphors may provoke laughter. Yet when presented with the sheer power of these lines, with their carefully-studied rhythms and heartfelt sentiment, it is hard to maintain such cynicism – it seems that, in this minuscule moment before her death, Marconi was entirely in love with the girl.



Fig. Q - Trieste, 1905; likely location of the suicide.

It is hard to believe that Marconi would have fell so quickly in love had this girl not been young, and beautiful. Yet without the riveting of attention caused by her fatal appearance, it is unlikely that any of Marconi’s later work would have been completed. Europe would have lacked a knowledge of cloud-formation for another 50 years, perhaps a century, and would have been poorer for the fact. It is similarly hard to believe that the girl had chosen her nightshirt that morning, or had been growing her hair, in the hope that her image would approximate Alpine

air currents. Her motives, for these things as much as her suicide, remain unknown and remain unimportant. The intellect abhors this chance, this coincidental and unconscious combination of death and pastis that has no right to endow knowledge. Yet it is a sad fact that, too often, this is precisely where such knowledge is found – it is born, not created.

The penultimate sentence before impact is short. It records that the girl's fall will end in the pool of a decorative fountain. The last states that another billowing wave of her shirt is forming.

Perhaps nowhere else in the history of thought has a hypothesis been so quickly and fortunately proven. Fortunately, the water in the fountain was barely a foot deep, and so the girl's fall stops abruptly, her nightshirt and hair seeming to stand on end for a fraction of a second. Fortunately, the final wind-blow wave whips skywards at exactly the speed that water erupts from the fountain. This red-tinged blood-thick water, entrails streaming in its wake, cannot be absorbed by cloth nor hair. Instead, it flows with the last life of the girl, is contorted with the last breath of wind on her clothes. As it reaches the apex of her flailing trail, the whip-crack of the "discrete clouds" shatters its glass-smooth ascent into a trillion shining red droplets, and gives birth to a new cloud.