Rockslides and other types of slides involve the displacement of material along one or more discrete shearing surfaces. The sliding can extend downward and outward along a broadly planar surface (a translational slide), or it can be rotational along a concave-upward set of shear surfaces (a slump). A translational slide typically takes place along structural features, such as a bedding plane or the interface between resistant bedrock and weaker overlying material. If the overlying material moves as a single, little-deformed mass, it is called a block slide. A translational slide is sometimes called a mud slide when it occurs along gently sloping, discrete shear planes in fine-grained rocks (such as fissured clays) and the displaced mass is fluidized by an increase in pore water pressure. In a rotational slide the axis of rotation is roughly parallel to the contours of the slope. The movement near the head of the slide is largely downward, exposing a steep head scarp, and movement within the displaced mass takes place along internal slip planes, each tending to tilt backward. Over time, upslope ponding of water by such back-tilted blocks can enlarge the area of instability, so that a stable condition is reached only when the slope is reduced to a very low gradient.

A type of landslide in which the distribution of particle velocities resembles that of a viscous fluid is called a flow. The most important fluidizing agent is water, but trapped air is sometimes involved. Contact between the flowing mass and the underlying material can be distinct, or the contact can be one of diffuse shear. The difference between slides and flows is gradational, with variations in fluid content, mobility, and type of movement, and composite slide movement and flow movement are common.

A spread is the complex lateral movement of relatively coherent earth materials resting on a weaker substrate that is subject to liquefaction or plastic flow. Coherent blocks of material subside into the weaker substrate, and the slow downslope movement frequently extends long distances as a result of the retrogressive extension from the zone of origin, such as an eroding riverbank or coastline. Spreads occur as the result of liquefaction caused by water saturation or earthquake shock in such substrates as loess, a weakly cemented wind-lain silt.

Rotation of a mass of rock, debris, or earth outward from a steep slope face is called toppling. This type of movement can subsequently cause the mass to fall or slide.

In 1894 his father arranged his marriage to Antonietta Portulano, the daughter of a business associate, a wealthy sulfur merchant. This marriage gave him financial independence, allowing him to live in Rome and to write. He had already published an early volume of verse, *Mal giocondo* (1889), which paid tribute to the poetic fashions set by Giosuè Carducci. This was followed by other volumes of verse, including *Pasqua di Gea* (1891; dedicated to Jenny Schulz-Lander, the love he had left behind in Bonn) and a translation of J.W. von Goethe's *Roman Elegies* (1896; *Elegie romane*). But his first significant works were short stories, which at first he contributed to periodicals without payment.

In 1903 a landslide shut down the sulfur mine in which his wife's and his father's capital was invested. Suddenly poor, Pirandello was forced to earn his living not only by writing but also by teaching Italian at a teacher's college in Rome. As a further result of the financial disaster, his wife developed a persecution mania, which manifested itself in a frenzied jealousy of her husband. His torment ended only with her removal to a sanatorium in 1919 (she died in 1959). It was this bitter experience that finally determined the theme of his most characteristic work, already perceptible in his early short stories—the exploration of the tightly closed world of the forever changeable human personality.

Pirandello's early narrative style stems from the *verismo* ("realism") of two Italian novelists of the late 19th century—Luigi Capuana and Giovanni Verga. The titles of Pirandello's early collections of short stories—*Amori senza amore* (1894; "Loves Without Love") and *Beffe della morte e della vita* (1902–03; "The Jests of Life and Death")—suggest the wry nature of his realism that is seen also in his first novels: *L'esclusa* (1901; *The Outcast*) and *Il turno* (1902; Eng. trans. *The Merry-Go-Round of Love*). Success came with his third novel, often acclaimed as his best, *Il fu Mattia Pascal* (1904; *The Late Mattia Pascal*). Although the theme is not typically "Pirandellian," since the obstacles confronting its hero result from external circumstances, it already shows the acute psychological observation that was later to be directed toward the exploration of his characters' subconscious.

Pirandello's understanding of psychology was sharpened by reading such works as *Les altérations de la personnalité* (1892), by the French experimental psychologist Alfred

Meanwhile, he had been writing other novels, notably *I vecchi e i giovani* (1913; *The Old and The Young*) and *Uno, nessuno e centomila* (1925–26; *One, None, and a Hundred Thousand*). Both are more typical than *Il fu Mattia Pascal*. The first, a historical novel reflecting the Sicily of the end of the 19th century and the general bitterness at the loss of the ideals of the Risorgimento (the movement that led to the unification of Italy), suffers from Pirandello's tendency to "discompose" rather than to "compose" (to use his own terms, in *L'umorismo*), so that individual episodes stand out at the expense of the work as a whole. *Uno, nessuno e centomila,* however, is at once the most original and the most typical of his novels. It is a surrealistic description of the consequences of the hero's discovery that his wife (and others) see him with quite different eyes than he does himself. Its exploration of the reality of personality is of a type better known from his plays.

Pirandello wrote over 50 plays. He had first turned to the theatre in 1898 with *L'epilogo,* but the accidents that prevented its production until 1910 (when it was retitled *La morsa*) kept him from other than sporadic attempts at drama until the success of *Così è* (*se vi pare*) in 1917. This delay may have been fortunate for the development of his dramatic powers. *L'epilogo* does not greatly differ from other drama of its period, but *Così è* (*se vi pare*) began the series of plays that were to make him world famous in the 1920s. Its title can be translated as *Right You Are* (*If You Think You Are*). A demonstration, in dramatic terms, of the relativity of truth, and a rejection of the idea of any objective reality not at the mercy of individual vision, it anticipates Pirandello's two great plays, *Six Characters in Search of an Author* (1921) and *Enrico IV* (1922; *Henry IV*). *Six Characters* is the most arresting presentation of the typical Pirandellian contrast between art, which is unchanging, and life, which is an inconstant flux. Characters that have been rejected by their author materialize on stage, throbbing with a more intense vitality than the real actors, who, inevitably, distort their drama as they attempt its presentation. And in *Henry IV* the theme is madness, which lies just under the skin of ordinary life and is, perhaps, superior to ordinary life in its construction of a satisfying reality. The play finds dramatic strength in its hero's choice of retirement into unreality in preference to life in the uncertain world.

The production of *Six Characters* in Paris in 1923 made Pirandello widely known, and his work became one of the central influences on the French theatre. French drama from the

The occurrence of an avalanche depends on the interaction of mountainous terrain, weather conditions, snowpack conditions, and a trigger. Slab avalanches typically occur on slopes of 30 to 50 degrees. On slopes that are less steep, there is generally insufficient gravitational force to overcome frictional resistance and cause the displacement of a snow slab; on steeper slopes snow tends to sluff off. However, slab avalanches do occur on steeper slopes in climates with dense, wet snowfall. An important feature of terrain that can lead to an avalanche is the lack of objects that serve to anchor the snow, such as trees. Slab avalanches will not occur on slopes with sufficiently dense tree cover, which is about 1,000 conifer trees per hectare (400 per acre) on steep slopes and about half that density on gentler slopes. Other objects that can anchor the snow are large exposed rock outcroppings and rocks that are large enough to stick up through the snow cover. The probability of avalanches may be increased or decreased by several other terrain features, such as slope shape, a slope's exposure to sun and wind, and elevation.

Certain types of weather lead directly to dangerous avalanche conditions—that is, to a high risk that an avalanche will occur. Slab avalanches are commonly associated with heavy snowfall and strong wind. With heavy snowfall, weaknesses in the existing snowpack may become overloaded, and the snow may fall so quickly that the new snow is unable to bond to the snow beneath it. Strong wind tends to break down the snow into ice crystals that readily bond together into a slab, and it also transports snow onto the lee sides of ridges and gullies, where wind-loaded snow leads to more frequent avalanching. Other meteorological conditions that can quickly lead to dangerous avalanche conditions are rapidly rising air temperature and rainfall on existing snow cover.

A snowpack consists of layers of snow, each formed at different times. Once the snow is on the ground, the ice crystals undergo physical changes that differentiate the layers deeper in the snowpack from those on top. These changes can weaken a layer underlying a cohesive slab of snow and thereby help set up a slab avalanche.

Once the conditions for an avalanche exist, a trigger simply applies sufficient force to release it. Natural triggers include new snowfall, wind-deposited snow, and a falling cornice (an overhanging mass of windblown ice or snow extending from a ridge). Other triggers include skiers, snowmobilers, snowboarders, and explosive blasts. Contrary to