

Pioneer front

The pioneer or settlement front can be defined as a spatial feature reflecting a process of appropriation of new territories, where such territories are viewed as a virgin environment void of any trace of modern "civilisation". The main form of action, which is also symbolic, but not unequivocal, is clearance of grassland or forest by burning. This clearance is conducted simultaneously with the opening up of tracks, and the construction of permanent points of settlement. The negation of the legitimacy or the anteriority of occupation by peoples other than those connected with the pioneer wave is a second characteristic of pioneer and settlement movements. This was the case in the American west, when settlers moving into the "Far West" took over "virgin territory"; it was only recently, for instance, that in the Amazon basin the *pedra preta* came to light (black rock) – an inselberg covered in pre-colonial Amerindian engravings in the pioneer front area of Alta Floresta (north of the Mato Grosso in Brazil).

The definition of the pioneer or settlement front as the integration of land presumed to be virgin and referred to as such was elaborated by a series of articles by the historian and sociologist J.F. Turner between 1893 and 1918. In the 1930s, American geographers adapted Turner's ideas, in particular I. Bowman who in 1931 produced the phrase "pioneer fringe" and proceeded to describe the different pioneer or settlement zones across the world. At the time, Bowman estimated a linear distance of 40 000 km overall for settlement fronts worldwide. In view of a figure of this size, the author wondered about the conditions in which clearances were conducted, and the advantages to be derived by societies from possessing territory of this sort. In the 1930s, the pioneer movement encountered scientism: it became a testing ground for agricultural experimentation. By way of modern technology, mankind was conquering the environment, in particular through new irrigation systems and the mechanisation of agriculture. One year after the publication of Bowman's book in 1932, A. Demangeon incorporated this new notion of the pioneer front into French geography. The term, which was prominent in English-language geography, underwent a certain softening when imported into French. It was only in 1952 with the publication of a thesis by P. Monbeig that the concept of the pioneer front aroused new interest in French geography.

The concept of the pioneer front is the product of a whole process in which settlement extension policies in new countries and scientific considerations are intermingled. The conquest of the west in the USA in the second half of the 19th century led to the appearance of the word frontier to describe and analyse these pioneer and settlement phenomena. The frontier as seen by J.F. Turner shifted over time, and created a zone of settlement within which any phenomenon occurred fast and on a large scale. The example of the towns in the Far West mushrooming almost overnight, with an exploding demography and very fast urban growth, is typical of the conquest process. The exploitation of a territory, linked to transport facilities and directed towards a distant metropolis, integrated these new spaces into the nation.. The problem of land ownership and its legal status was approached more fully by Monbeig, who pointed to the predominant role of certain protagonists (the fazendeiros) in the creation and legalisation of the ownership of vast tracts of land in southern Brazil. This regional monograph of a pioneer or settlement front pinpoints the role of certain crops (such as coffee and cotton) in the establishment of a vast system of economic development linked to the emergence of a middle class. The environmental setting does not explain everything, the state of mind and the sociological features of a whole group also play a part. The role of politics is also central, since a pioneer or settlement front can have a geo-political purpose: reducing agrarian tension and economising on the need for agrarian reform, while at the same time integrating large tracts of territory.

The pioneer front can be viewed as a process occurring in stages. Speculation on land and the legalisation of land takeover are a first added value, without any real processing having occurred. Then the dual phenomenon of humanisation and spatialisation sets in. There are secondary tracks on either side of a main penetration route towards the new areas, and the appearance of a scatter of new settlements sketches out the first structuring of space. This is then refined by the strengthening of certain lines of communication and certain poles, and the decline and disappearance of others. This spatial refinement enables the pioneer zone to be structured. Numerous land clearances contribute to the conversion of a resource environment into an agricultural space that may be more or less efficient. This rapid development is often incomplete, leaving numerous "islets" to one side and thus preserved. The following phases reinforce this process of anthropisation and spatialisation in situ, while at the same time the main front is continually shifting further ahead. One marker of this constant shift is the progress of the sawmills. These different stages can easily be observed in Mato Grosso state (west central Brazil).

As a product of a particular place and a particular project, the pioneer or settlement front combines spatial dynamics with a system in which protagonists vary. The front can be a community project, or it can be organised by an authority (a political project), or it can also result from the convergence of action arising from individual incentives. Across Brazil, different types of pioneer fronts coexist. The

projects and developments arising from public colonisation are characterised by a succession of small plots and a large number of small settlers, while private colonisations favour large farms (arable or extensive livestock breeding) integrated into the global system and agro-food industry. Nevertheless, these two forms are not totally contrasted: certain forms of private colonisation foster the installation of small farmers. The last form taken by the pioneer front is known as "spontaneous": on the fringes of planned projects a mass of landless poor settles in the hope of attaining legal status and sharing in the Eldorado. Their dreams can often come to an abrupt and tragic end. The pioneer front is also a zone of violence, as was the Far West of J.F. Turner, and as is today the Paragominas (the region where the states of Minas, Goas and Para meet) in Brazil. While Brazil, and also the Amazon slopes of other Andean countries (Peru, Bolivia, Columbia, Venezuela) are in terms of surface area very large pioneer fronts, Indonesia with its masses of displaced settlers (via the transmigration policies) occupies the leading position in terms of numbers of settlers. Another important pioneer front today is the vast mosaic of industrial centres in Siberia. This pioneer front has to cope with the constraints of the immenseness of a continent-state: the USSR and then Russia. The main line of communication across this space is the famous trans-Siberian railway seconded by the Baikal-Amur Magistral. The exploitation of the different sources of energy and the development of the towns and cities are the most notable features of this development. It also results from a coercive political programme targeting a specific population, the prisoners from the goulags. Today, the Siberian pioneer front is being completely overhauled, and regressive dynamics predominate.

See also: oekumen, land use

Bibliographie