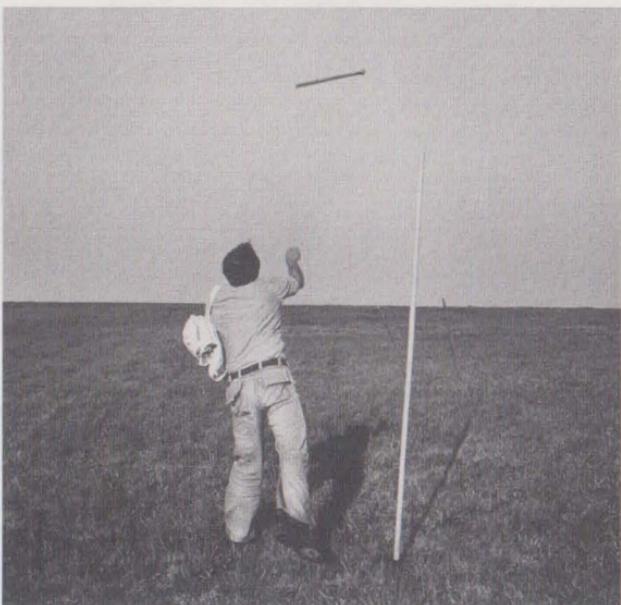


O. F. Bollnow  
**Human space**

Translated by Christine Shuttleworth  
Edited by Joseph Kohlmaier



*[Handwritten signature]* 2012

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*To Dr Ortrud Bollnow, née Bürger*

*11 September 1963*

place, suitable to it. And it has this place by nature, not one assigned to it by human beings. It is a cosmically ordered and at the same time necessarily finite and manageable space. Space therefore does not extend further than the things that fill it. Certainly Aristotle at first only relates this thought to the four 'elements', but probably he would extend it further to the individual things in space arising from nature, which equally have their natural place. And in this context, finally, one might also include the human ordering of space, which for its part assigns its (human) things to their space, but which should at the same time be immediately integrated into the surrounding cosmic order. This opens up a wealth of new questions.

## 2 Word usage and etymology

### Everyday linguistic usage

With a brief glance at Aristotle, we have loosened up to some extent the fixed ideas conditioned by the modern physical concept of space. We are now ready to consider more objectively what is meant by the term 'space' [Raum] as it is naturally understood. In doing this, we will from the start disregard a derived scientific usage where space is spoken of as a human concept, as in Euclidean and non-Euclidean spaces. We will also disregard the jargon widely in use today, in which the concept of space is used in an undefined, figurative sense, very difficult to grasp in detail, as when reference is made to 'industrial', 'political' or even 'creative' space. These terms generally denote something like areas in which the observed phenomena take place. Rather, we will consider the word 'space' in its direct, powerful, natural linguistic sense, which is not yet burdened by such distortions.

In doing so we notice that the German word for space, 'Raum', when accompanied by the definite or indefinite article, occurs only in the sense of a room as a part of the house, as a generic term, therefore, which encompasses living room, bedrooms, kitchen and the other parts of the premises [Räumlichkeiten]. 'Raum', in this

sense, is an independent part of the house, separated off by means of dividing walls, which in turn may serve various purposes. Thus one speaks of 'Wohnräume' [living rooms], 'Büroräume' [offices or workrooms], 'Nebenräume' [side rooms], etc. A very typical example is that of the assembly or meeting room. If the meeting takes place in the open air, we speak of the meeting-place or area, but not of 'Raum', which makes it especially clear that 'Raum' here always means a part of a building, that is, something closed off from the outside world, a hollow space. This linguistic usage, by the way, is not found in other languages. In French, for example, the word 'pièce' is used, and the question that interests us is eliminated straight away by linguistic usage. We can therefore disregard this meaning of the word.

Otherwise, however, the word 'Raum' – used without an article – occurs above all as a component of certain fixed phrases, and we will have to rely on these if we want to understand what is meant by the term when it is not yet encumbered by science. In this sense one speaks of 'having room' or 'needing room' to spread out, thus 'creating room' for oneself. We read in the Christmas story, for example, that the baby Jesus had to be laid in a manger, because there was 'no room at the inn'. It is also said that for a happy pair of lovers there is 'room even in the smallest hut',<sup>15</sup> a state of affairs to which we will return in more detail in another connection. In a similar sense we also speak of a 'roomy apartment', 'roomy larders', etc. The expression continually used is 'room' [Raum]: a room available for use, not required for any other purpose, a room in which one can move freely. We may also speak in a figurative sense of allowing 'room' for thoughts and feelings, such as suspicion.

'Raum' [space or room] is therefore in the widest sense the 'elbow-room' for a movement, the space or distance between things, the 'free space' around a person. Narrowness and width are the original definitions of this space. Space is tight, so that one feels hemmed in by it, or there is abundant space, so that one can be lavish with it. The so-called endlessness of space is as little considered here as it is by Aristotle, because there is no point in speaking of space unless it can be filled by a specific necessity of life. Space never extends further than the range of life which is to be fulfilled. One may have a great deal of space, but to have endless space can only mean to have more space than one can ever make use of.

### Linguistic references

a. This interpretation is confirmed if we invoke the linguistic references supplied by etymological dictionaries. The Grimms' *Deutsches Wörterbuch* gives as the original meaning of the word 'räumen' [to clear a space]: 'to create a space, that is, a clearing in a wood, for the purpose of cultivation or settlement'.<sup>16</sup> This also is the origin of the word 'Raum'. The various older examples, according to the Grimms, use the word 'Raum' 'as an ancient expression of settlers ... which at first referred to the activity of land clearance and freeing of a wilderness for settlement ... then to the place of settlement itself'. This reference is highly significant. Space in this original sense is not already in existence per se, but is created only by human activity, by the clearing of the wilderness (which is therefore not a 'space'). In the same way, we learn from the Kluge-Götze dictionary that the word came into being from a common Indo-Germanic adjective in the sense of 'roomy', in its earlier senses something like 'free space, resting-place, seat, bed'.<sup>17</sup> In an already somewhat extended range of meaning, 'Raum' also denotes a hollow space, which receives and houses or harbours the human being, in which he can move freely, and which, as such, is differentiated from anything else that surrounds him which is no longer referred to as 'Raum'. A suggestion of harbouring always seems to accompany it. In a related sense, the term 'Laderaum' is used for the place assigned as storage space on a ship. Here too the idea is one of an available place that is closed in all around.

Seen in this way, space is further that which is between things, even if the idea of the hollow space then retreats. Things allow more or less space. One example speaks of 'two rocky mountains which scarcely allow room for the little river to force its way through'.<sup>18</sup> Space is thus the often narrow space needed to allow movement. Likewise, another example reads: 'There was dancing on the floor; that is, anyone who was able to take possession of two feet of space kept turning around on that spot'.<sup>19</sup> Here too, space is the space necessary for movement, which one must first conquer for oneself. This space may be narrow. 'Around one, beside one, not an inch of space', reads another example. Here the human being is wedged in, unable to move freely. Space is thus always free space for something, in particular for a movement, for free unfolding, and in terms of this natural concept it ends where things prevent further movement.

But space can also be wide. Rilke writes in one very fine passage of a joyful experience: 'It was as though things closed together in order to make room'.<sup>20</sup> Space is therefore in all these cases something specific, determined by the situation. And if one also describes a situation in a figurative sense as constricting, there also lies behind this term the original suggestion of a lack of space for movement.

One speaks in general of a lack of space, of an advantageous use of space or of a waste of space. But however we interpret it, in all these cases of an uninhibited linguistic usage 'space' by no means signifies the three-dimensionally endless, all-embracing continuum, but rather it refers to a life that unfolds within it. Space exists only in relation to a movement perceived as living. If one also speaks of space in relation to an inanimate being (such as the river mentioned above), this is only possible in so far as it moves and therefore can be thought of as animated. The space required largely depends upon the individual claim. 'You would not believe', says Goethe, 'how much room ['Platz'] one finds when one needs little space ['Raum']'.<sup>21</sup> In a similar sense, a well-known German proverb states that many patient sheep can enter a sheepfold. The less room each one claims for itself, the more individuals can find room in a space. Schiller writes confidently: 'The earth has room for all',<sup>22</sup> where 'Raum' is now meant in a more general sense as 'Lebensraum', that is, as a possibility for the development of human life.

The concept of space has now been extended. It has lost the notion of more or less constricting boundaries. Thus we find the term of the 'raumen See', the wide, open sea.<sup>23</sup> We also find 'Luftraum' [air-space] as the space of an infinitely wide-ranging movement, even though often completed only in thought, for example:

... when we hear the lark outpour,  
Its warbling song, lost in the blue of heaven<sup>24</sup>

We also like to use the heightening plural, when we speak of 'heavily spaces'. This idea is also suggested by Hesse when he writes:

serenely we shall traverse space after space<sup>25</sup>

Here too we feel the sense of elation at being freed from constricting boundaries:

the world spirit wishes not to fetter and constrict us

Compared with the plural which is here establishing itself, interstellar space, in which even ‘space travel’ has recently begun to develop, is necessarily always expressed in the singular.

b. This picture is confirmed and enriched when we also consider the related verbal expressions. The word ‘räumen’, to whose original meaning we have drawn attention above, in its further development means something like giving up a previously occupied space. The vanquished opponent ‘räumt’ [vacates or moves out of] the battlefield, by withdrawing his troops from it. The outgoing tenant vacates his apartment by taking his furniture out of it to make room for a new occupant. The police clear the premises when a fight has broken out there. The shopkeeper makes room for new stock by holding a ‘clearance sale’.

‘Räumen’ in this sense also means clearing out of the way, and finally becomes equivalent to cleaning. One clears the table, one clears the stove or fireplace by removing remains of ash or soot. To make ourselves clearer, we also call this ‘abräumen’ or ‘wegräumen’ [clearing away], or ‘ausräumen’ [clearing out].

The word ‘einräumen’ in one sense is also relevant in this connection. It means to make room for someone else by withdrawing from it oneself. Thus, in the context of discussion, it also means giving up a position of one’s own, because one recognizes an opponent’s objection as valid. ‘Einräumen’ in the other sense means the process of placing in a space – a room about to be newly occupied, a new cupboard or wardrobe, or one being put to a new use, a drawer of a chest, or the like – the things that are to be stored there in future. One does not simply throw them in, but one creates order in this limited space by giving each object that was previously lying around at random a specific place to which it will in future belong.

In the same way, ‘aufräumen’ means returning objects negligently and indiscriminately scattered in a room, a workshop, etc., to their place, and thus, after the constricting disorder, again at last acquiring room to move, or ‘to breathe’, as we say in a loose colloquial sense. In a figurative sense, one can also describe a mental state as ‘aufgeräumt’. Here the word means something like clear-thinking, not constricted by any uncontrolled prejudices, in a similar way to the later word ‘aufgeklärt’ [enlightened], but in addition, in particular, cheerful or genial. ‘She was friendly, obliging

and open-minded [aufgeräumt] to all’,<sup>26</sup> we read in one example, or, in a well-known poem by Goethe:

St Peter’s thoughts had gone astray [war nicht aufgeräumt] —  
He had been musing on his way.<sup>27</sup>

Here the new meaning is very well expressed. That St Peter was not ‘aufgeräumt’ means, as with a room that has not been tidied up, that he was not free to meet the claims placed upon him, because he was full of other thoughts; he was not available, in the sense of Gabriel Marcel.

c. As a guide to later investigations, let us sum up the information we have gained from the language in the following ways:

1. Space [Raum] is that which surrounds us, in which everything has its place or location.
2. Space is the elbow-room that man needs in order to move freely.
3. Space in its earliest linguistic significance is the clearing created in a wood to prepare it for human settlement. It is thus originally a hollow space.
4. Space, further, is non-constricting but fundamentally closed space; it is by no means infinite in nature.
5. Even with so-called free space, we are not speaking of an abstract infinity, but of the possibility of an unhindered advance, like that of the lark in the air, or of the breadth of the spreading plain.
6. Space thus becomes the space for development of human life, which is measured by the subjectively relative definitions of narrowness and width.
7. In taking space and giving space, it is a question of the rival relationship in the human urge for development. In their need for space, people collide with each other and need to share their space.
8. Space as elbow-room also exists between objects. But space is here also the elbow-room for movement, the distance between objects. It is only space in so far as it is empty, that is, it extends only to the surface of things, but does not penetrate them.
9. Space is created by human orderliness, and is lost as a result of human disorderliness.

10. To make space [*einräumen*] and to clear space [*aufräumen*] are thus forms of organization of the human sphere of life, in which space is created for a suitable activity.

### 'Orte' and 'Stellen' in space

Having begun by getting to know space as the surrounding whole, we must now turn to its inner structure, and consider first of all the terms available in the German language to describe it. These include 'Ort', 'Stelle', 'Platz' and similar terms. We must therefore determine not only the relationship with what is designated by these terms with space, but also their relationship with each other. In a very rough approximation, this relationship can be described as one of points in a continuum. The Grimms' dictionary defines it as follows: "Raum" [space] is primarily the given location for expansion or extension. In contrast to this, "Ort" [place] which comes into being in such a space. And other interpretations will have to be made of the other expressions. We must therefore look into each of these words individually.

a. The most straightforward relationships are those of the word 'Ort'. Here, linguistic history provides useful clues to the more precise understanding of the word. Its primary meaning is given as 'point', in particular 'spear-point'. A well-known passage in which this word is first found is in the 'Hildebrandslied'. Hildebrand and Hadubrand stand facing each other, 'ort widar orte', that is, spear-point to spear-point. This origin is also preserved in some other contexts: the shoemaker uses an 'Ort' among his tools, that is, an awl. Geographically an 'Ort' is a point of land projecting into the water, such as Darsser Ort in the Baltic, etc., or, as in Ruhrort, the point at the estuary of a river's tributary. The mineworker works 'vor Ort' when he quarries into the rock at the furthest end of the tunnel. The word 'Ort' always means point.

These linguistic clues very neatly characterize the general meaning of 'Ort' in a spatial context. 'Ort' always refers to a specific point. One can *point* to it. It designates a fixed point in space, in particular a fixed point on the earth's surface. Above all, however, this concept has narrowed to the sense of an 'Ortschaft' [village or small town], that is, a human settlement. In this sense there is an

'Ortsangabe' [statement of place], a 'Wohnort' [place of residence], a 'Geburtsort' [birthplace], etc. But one also speaks of the position of a fixed star as 'Ort', or of a geometric 'Ort', etc., and in a figurative sense of 'Ort' as the location of a quoted passage.

If we try at this point to define the meaning of the word 'Ort' [point], it does not imply extension, a filled surface or a filled space, as with the word 'Platz' [place]. One cannot say that something 'has point' or 'needs point', in the way that it needs its place. 'Ort' is rather always a specifically located and precisely fixed point. It retains this sense of pointing. It is this specific point in contrast to any other. Therefore one cannot exchange 'points' as one exchanges places and positions, but rather one can only move to a different point. It is through this specific character that the 'Ort' is most sharply distinguished from all (however small) spatial structures. A town, city or village is called 'Ort' in German not because of its spatial extensiveness, but because it is located in this particular place.

b. Closely related to the 'Ort' is the 'Stelle' [position], for this too refers to a certain point in space, but its meaning, corresponding to its different linguistic origin, is different again. 'Stelle' comes from the verb 'stellen' [to place]. The primary meaning of this verb is quite literally to make something stand, and from this it derives its various meanings such as bringing to a location, 'aufstellen' [to set up], 'hinstellen' or 'abstellen' [to put down], and so on. 'Stelle' is the fixed position of a thing. Another term linguistically related to this is the 'Stall' [stable], that is, the place for standing, today used more narrowly to mean cattle shed. This meaning of 'stellen' is connected with the corresponding other linguistic expressions which will become important to us for the understanding of experienced space. The 'Gestell', the frame into which something can be placed, is also closely connected with the act of making a place for something. This includes the 'Bettstelle' [bedstead], the frame for sleeping, the 'Fahrgestell' [chassis of a car], and so on.

'Stelle' is thus in this sense the place where one puts something, and where this is later to be found. It is often equivalent to 'Platz'. It is the right place. In a related sense, one can also say that one brings someone to the 'Stelle' [report for duty]. If something is 'zur Stelle' [to hand], this means it is tangible, available. But from this point, this word too has been generalized. The 'Stelle' is the

place for something, such as the ‘Baustelle’ [building site], the ‘Haltestelle’ [bus or tram stop], the ‘Schlafstelle’ [sleeping place], and so on. The ‘Baustelle’ for example is the place where building is carried out. The meaning is often so closely linked with that of ‘Ort’ that it is difficult to draw a distinction between them. Thus one speaks of an ‘Unfallstelle’ [scene of the accident], but a ‘Tatort’ [scene of the crime]. At the same time ‘Stelle’, in a freer meaning, can refer to something found at a certain place, distinguished from its surroundings. For example, an apple can have a ‘faule Stelle’, a rotten spot, etc.

Similarly, the word ‘Stelle’ can also be transferred to the literary world, and here too it is closely linked with the quoted ‘Ort’. There is a ‘Belegstelle’ [quotation], a ‘Bibelstelle’ [biblical passage], and so on; I cannot find the ‘Stelle’ [place] in a book where I saw an interesting sentence. Here the word ‘Ort’ refers to the work and the page number, the ‘Stelle’ however also means the quoted sentence itself.

From here, the word ‘Stelle’ can be transferred to other frames of reference, and thus become functionalized. For example, there are numbers with several decimal places [Stellen]. Again, a ‘Stelle’ may be a job [position, place], for example as a bookkeeper, that an individual is looking for, and in the newspaper there are whole pages of ‘Stellenangeboten’ [job offers]. There is an ‘Arbeitsstelle’ [place of work], a ‘Lehrstelle’ [a vacancy for an apprentice], or someone is without a place [a job] and applies to the ‘Stellenvermittlung’ [job centre or employment agency]. Nevertheless, a certain differentiation seems to exist here: when someone is looking for an ‘Arbeitsplatz’ [job], the word ‘Platz’ in the general sense seems to mean that he will be accommodated or taken care of there. ‘Stelle’ on the other hand rather refers to a certain task that he will have to undertake there. In the functional sense there is also a ‘Stellvertreter’, a representative, who in case of need takes the place of the actual holder of the job. Likewise, there are also ‘Amtsstellen’ [official posts], and instructions may come from the ‘höchster Stelle’, the highest authority.

c. The closeness of the word ‘Platz’ to ‘Stelle’ has already been mentioned. One puts something in the right place or in the right position, without any difference between the two expressions being

detectable. Nevertheless, place is not exactly the same as position, and we must try to distinguish between the two concepts. The history of language does not give us many clues here. Place comes from Greek: πλατεία ( $\delta\delta\delta\zeta$ ), the broad street, the main street of larger cities, gives us the Latin ‘platea’, which changes meaning from street to courtyard and square [Platz], from which derive the Italian ‘piazza’, the French (and English) ‘place’, and so on.

In the course of medieval development the meaning becomes extended, so that ‘Platz’ now generally means an open space. Thus there is a ‘Bauplatz’ [building site], a ‘Festplatz’ [fairground], a ‘Sportplatz’ [sports field or playing field], a ‘Richtplatz’ [place of execution], etc. Here a place is universally the open space made ready for something, and unlike similar combinations with ‘-raum’ it means a covered area in the open air. There is a ‘Sammelplatz’ [assembly point], a ‘Lagerplatz’ [storage area or campsite], a ‘Stapelplatz’ [stockyard] and a ‘Handelsplatz’ [trading centre] for goods, and in a military context a fortified place, of which a ‘Platzkommandant’ is in command. But in a minor sense, with reference to an individual person, a ‘Platz’ may also be a place for standing or sitting, for example in a theatre, which has a fixed number of seats, or a railway train. One ‘nimmt Platz’ [takes one’s seat]. And so the ‘Platz’ becomes in a more general sense the space occupied by a person. In this sense one makes ‘Platz’ [room] for someone or takes someone’s ‘Platz’ [place].

For all their sparseness, these particulars of linguistic history suffice to give us an indication of the differentiation of concepts. In all the examples, going back to its Greek origin, the word place always implies a certain expansion or extension in space, even a certain dimension of width. This differentiates the word from a point or position and brings it closer to ‘space’, so that we must now clarify the relationship of these two concepts.

Nevertheless, this approximation is valid only in a very narrow sense. ‘Raum’ is by far the more comprehensive term. ‘Weltraum’ [outer space] has no equivalent in ‘Platz’ [unless one were to say, very inappropriately, that there is ‘Platz’, room, for very many stars in it]. Only in the context of smaller spaces can the two concepts be compared. ‘Platz’ is always a place which is limited, created by humans and made ready for human purposes. This is valid in larger contexts of urban development. The market place, for example, is

the place kept free of buildings for the conducting of market business. It is always the human shaping of the world that determines that ‘points’ become places. In the desert, for example, or in the high mountains and in inhospitable regions, there are probably points where one could in theory meet, but not ‘places’.

This however is also valid on a smaller scale, where humans allot a place to an object in a space designed by humans, and this place is closely related to the point in the sense mentioned above. Nevertheless the difference is also noticeable here. A place is allotted to a thing, but it can be located at any given point. Again, the position [Stelle] is where one deposits something. It is assumed that there is indeed room [Platz] for it. With room, however, one must take care that the required extent of space is available. In case of need, room must be made, by clearing away something else. There is an interesting difference between ‘Bauplatz’ [plot of land] and ‘Baustelle’ [building site]. The plot is the site made available for building. Perhaps it may be acquired for later use. But it becomes a building site only when building actually takes place on it, and it remains one only as long as the work continues.

Here space and place are quite close together in meaning, but it is precisely here that the difference too is perhaps most clearly to be grasped. One makes room so that another person can pass by, that is, one moves aside. One can offer another person one’s place, for example one’s seat. One can dispute someone’s right to their place or alternatively their ‘space’. Here the difference is clear: in the battle for someone’s space it is a question of drawing the boundaries between the individuals’ spaces more tightly or extending them. But a place can only be surrendered or maintained as a whole. I can only create the place for something by taking something else away. The place is a limited quantity at one’s disposal, which can be divided in one way or another. This also applies in a figurative sense to the place of work or job. In working life, the older generation makes place for the younger, by leaving its workplace or job to the latter and going into retirement. Here, then, no ‘space’ is gained, but an available ‘place’ is newly allocated. It would be a different matter, something less easily quantifiable, if the older generation allowed the younger ‘space’ for its own development. This is why Schiller says: ‘There is space for all on earth’, but on another page, ‘Make place for the Landvogt! Disperse the crowd!’<sup>28</sup> or: ‘Woman, make place, or my horse will stride over you’.<sup>29</sup>

This is also valid in a more general sense: place designates the closely bounded area of space into which something just fits, up to its limit, but not beyond. ‘Space’ however also means the room for movement, the elbow-room for a movement. Thus a free ‘place’ is a space not being used, one that is still disposable, that is empty. In this sense, much space can be available, but necessarily there is a finite amount of ‘place’. A free ‘space’ on the other hand opens up an expanse for movement. It can be opened up to an infinite extent. Thus one can differentiate: things too need a place, but ‘space’ in the true sense is needed only by man. Place is something disposable in the world, ‘space’ however is part of the transcendental condition of man. In this sense space acquires the basic precedence over all points, positions and places in space.

d. More for the sake of completeness, let us also mention the ‘Fleck’ [patch, or spot], which often overlaps with points and positions. When, for example, Goethe writes: ‘In Neustadt we found everything in the same spot; the bronze of the king was still galloping in the same position’,<sup>30</sup> it is only for stylistic reasons that the word position is substituted for ‘patch’, where the meaning remains the same. Thus the expressions ‘nicht vom Fleck kommen’ and ‘nicht von der Stelle kommen’ mean the same thing [to get nowhere, to make no headway], and ‘das Herz auf dem rechten Fleck haben’ [to have one’s heart in the right place] means the same as having it ‘an der rechten Stelle’. Without going into the linguistic history in detail, ‘Fleck’ and ‘Flecken’ (as well as ‘Flicken’) are individual pieces of material, in particular remnants, that can be used for repairs, for patching. ‘Besser ein wüster Fleck als ein schönes Loch’ [better a messy patch than a beautiful hole], says the proverb. And so there are patches of the most varied kinds, leather patches used by a cobbler on shoes, fabric patches used by a tailor. And as a patch of this kind stands out against its background, so it becomes similar to the spots discussed earlier, for example the ‘Schmutzflecken’ [spot of dirt or dirty mark], the ‘Tintenflecken’ [ink stain], ‘Fettflecken’ [grease mark or spot], and also, in a figurative sense, the ‘Schandfleck’ [eyesore, blot on the landscape or disgrace].

But in addition, and with greater relevance here, a piece of land is also called a patch. One speaks of a ‘lovely spot or patch of land’, and also uses the word to refer to an ‘Ortschaft’ [village or

small town]. There is also a ‘Marktflecken’, a small market town. The fact that both meanings derive from the same Indo-Germanic root in the sense of ‘to beat’, and thus originally refer to something ‘beaten flat’, is important for our purposes, since this leads to the meaning of a flat, extended surface. The ‘Fleck’ always remains two-dimensional.

e. Finally, let us also remember the ‘Feld’ [field] as an extended surface, which is then used in a figurative sense, for example in gravitational field or electromagnetic field, for a well-structured space.

All these definitions of the meanings of words, these reflections on present-day linguistic usage, and digressions into German linguistic history, are not intended to anticipate the practical examination of the problem of space. Their only purpose has been to prepare some points of view for this practical analysis in a provisional heuristic sense. It is in this spirit that we will carry them with us as we now turn to the actual analysis, as regards content, of experienced and lived space.

### 3 The natural coordinate system

#### Vertical axis and horizontal plane: upright man

After these preparatory discussions we will try to visualize in detail the structure of experienced space. We will begin with some very general definitions and try to move on from there to the more specific subdivisions. In doing so we will once again start with the difference indicated earlier between experienced space and mathematical space. In contrast to the homogeneity of mathematical space, as we have said, experienced space is characterized by its lack of homogeneity. We will now pursue that difference in its various aspects. It means, in the first place, that in experienced space there are no axial directions of the same quality, but particular, distinct directions that are inextricably linked with the relationship of the human being with space.

Aristotle distinguished six ‘kinds’ of space, classed in pairs: above and below, front and back, right and left. These are the directions naturally arising from the position of the human being standing upright in space. Admittedly Aristotle went beyond this and believed that this structure could be found, independently of the human body, in space, where every object had its ‘natural’ place. Here however the structural system is simplified to the one contrast between above and below, while the other two pairs of opposites – significantly, as we shall see – are abandoned. But we will ignore this extension into the cosmological sphere and will restrict ourselves to the space experienced by the human being in the narrower sense.

And here we immediately observe that the three pairs of opposites are by no means of equal value, but each has its own non-interchangeable character. We perceive front and back in a different way from right and left (we will return to this too). Above all, the concept of above and below stands out, since it is conditioned by the upright posture of the human being. Of this we can indeed say that it arises from nature and not from human arbitrariness; for right and left, front and back, change when the person turns around, but above and below remain the same, even if the person lies down or moves in space in some other way. They are determined by the direction of gravity. It is the direction of standing up and falling down, of rising and falling and thus also of lying on the ground. In this sense the above/below direction is objectively given.

An abundance of transferred meanings are brought into play even with this simple opposition of above and below. To pick out one fairly arbitrary example, in which the direct experience from life of the dimension of height still resonates, I will quote a statement by Kästner. He stresses ‘that such a great number of miracles take place on mountains’, and continues: ‘Every mountain ascent contains a distant echo of this event. This comes from the power that is captured in the word “above”, it arises from the energy of the word. Even someone who has long ceased to believe in heaven and hell cannot exchange the status of the words above and below. ... Above is above.’<sup>31</sup> This also applies to human social existence. Man tries to be ‘on top’ in all situations of life. He tries to subjugate others. The individual psychology of Alfred Adler made this opposition into the basis of an interpretation of all human life. But for the time being we will not speak further of these transferred meanings.

The situation is quite different with the contrasting directions of front and back, and right and left. 'Front' is what lies before me in the direction of my face or, more generally, of my body. But I can turn around, and then what was formerly in front of me is now (for example) behind me – or right instead of left – or some other direction in between. But it is now significant that when I turn around, I do not turn my space around with me in the sense of a body-bound system of coordinates, but I turn around *in space*, the space remaining fixed around me, while I turn. This means that my body, with its inbuilt axial system, is not valid as an axial system of space, but however much the space is related to me, it still acquires a peculiar independence, not dependent on my current physical position. I do not move my space, but I move in space.

But however much I may turn in any direction, the vertical axis still remains unaltered, and as a result the horizontal plane is also fixed. What is in front, the single point of direction, is changeable, but the plane as such is unchangeable. We can therefore establish our first, most straightforward structural principle: vertical axis and horizontal plane together form the simplest system of concrete human space.

Similarly, Kant in his observations 'On the first ground of the distinction of regions in space' started out from the position of the human body standing upright. Here he says: 'Since through the senses we know what is outside us only as far as it stands in relation to ourselves, it is not surprising that we find in the relation of these intersecting planes [that is, of the three planes, standing vertically one upon the other, given by the physical directions above and below, in front and behind, right and left] to our body the first ground from which to derive the concept of regions in space. The plane to which the length of our body stands perpendicular is called, in reference to us, horizontal; it gives rise to the distinction of the regions we indicate by *above* and *below*'.<sup>32</sup>

### The earth's surface

Of course this pattern is still much too abstract and only to be used as a primary aid to clarify the difference between experienced and mathematical space. We must now look around in both directions, the vertical and the horizontal. To begin with the latter,

the horizontal plane is not a simple abstract orientation scheme, but the term designates a tangible reality. It is the ground upon which I stand and which gives my life a solid basis. But this ground divides space into two very unequal halves: one is the physical space beneath me, into which I cannot (in practice) enter, because the solidity of the ground offers resistance to me. The other is the air space above me, into which I (in practice) equally cannot enter, but for the opposite reason: because the lack of resistance in the air continually allows me to fall back to the ground.

So these are two very different hemispheres. And it is to the border between these two areas, the surface of the earth, that man is bound with his life. The meagre extent to which he is able to remove himself from it, by climbing trees or crawling into caves, by building houses and towers, or digging wells and mines, or even from time to time by raising himself above the surface of the earth in an aircraft, all this cannot change the fact that man is fundamentally bound to this two-dimensional space, just as it is shown in the atlas. Even aircraft flights only act as a link between two points of the earth's surface. A life in planetary space, even if space travel gave us the opportunity for this, is something of which we simply can have no precise idea.

That this earth surface is structured by mountains and valleys does not essentially change this situation: for even if it is perhaps folded to some extent by heights and depths, it still remains a formation with the structure of a surface on which human life takes place. For this reason one has in mind only this flat surface area when speaking of the 'Lebensraum' [living space] of a nation. The meagre extent to which man can penetrate heights and depths by means of structural or civil engineering at best forces one to replace the designation of a horizontal plane with that of a horizontal layer, which, without sharply delineated upper or lower borders, always remains comparatively thin. Perhaps we can also express it in other terms: near space is three-dimensional, but distant space extends only in two dimensions. At any rate, the decisive dimension of the outer development of life is always its breadth.

Here a further difference between the upper and the lower hemispheres must be stressed: the downward view is limited by the opacity of the earth – even the ocean is transparent only to a very limited depth – but the transparency of air space enables an

uninterrupted upward view. So it is only a semi-space that opens up to my gaze, which is limited downward by the surface of the earth, upward by the vault of the heavens (which looks like a flattened shell), and which is united as a finite space surrounding me by a boundary line where these two surfaces meet, the horizon. The phenomenon of the horizon therefore forms a decisive further difference between concretely experienced space and mathematical space, and we need to deal further with it in this context.

### The firmness of the ground and the forms of its loss

But the earth's surface, in its material character, has a specific significance. Even if it cannot be described as a horizontal plane in the mathematical sense, even when it includes mountains and valleys and man can to some extent rise above it, this does not change the fundamental fact that man needs firm ground underfoot in order to be able to move, and that the solidity of the ground provides the basic situation on which all the security of human life relies.

If this solid ground is absent, man must fall, and if it is only partially absent, as when an abyss opens close to him, at a steep cliff in a mountain area, or at the unprotected edge of a high tower, he becomes dizzy, because the basis of his ability to stand is endangered. He thinks he is losing his balance, that he is about to plunge into a bottomless pit; he is gripped by a nameless fear, and he will really fall if he does not promptly succeed in regaining his foothold.

This phenomenon is fundamental to the understanding of the whole of human life, for the spatial pattern, in a figurative sense, applies to the whole situation of mankind. When Kierkegaard describes fear in general as 'the dizziness of freedom'<sup>33</sup>, what is meant is that all fear is understood in terms of this specific fear, that is, the fear of falling into bottomless space. Similarly, from a physician's point of view, Plügge describes the sense of crisis in terms of falling into an abyss.<sup>34</sup>

This is also valid in another figurative sense. Even when we say that a child 'schwindelt' [literally 'is dizzy'], that is, is fibbing, when he or she tells fantastic, unrealistic stories, or when, in the business world, a 'Schwindelunternehmen', a swindle or scam, collapses like a house of cards, this is all to be understood as part of the same pattern. 'Castles in the air' is a term used for structures without

any real basis that we build up in our daydreams. Philosophy too is constantly in danger of losing the 'firm ground of facts' beneath its feet, and it needs 'the courage for triviality' to linger over the simplest facts, in order to assess their entire significance. Everywhere the concept of spatiality offers the 'foundation' for an understanding of the intellectual world. Even the term just used in a figurative sense, 'foundation' [Grundlage], and indeed, more generally, that of 'ground' itself in its logical meaning, develops from here and must be understood from this point.

It is also interesting in this connection to pursue a specific phenomenon, such as that of extravagance [Verstiegenheit], as developed by Binswanger in a revealing study.<sup>35</sup> For extravagance too, as a typical form of 'frustrated existence', is to be understood in the spatial relationship of height and width, and is connected very closely with the phenomenon of vertigo which has just been discussed. As Binswanger describes it: 'As an existence that not only conceptualizes distance and strides into distance, but also conceptualizes height and climbs into heights, human existence is intrinsically fraught with the possibility of 'Sich-ver-steigen' [in German, either getting lost while climbing, or becoming presumptuous].' Extravagance depends for him 'on a certain disparity between climbing up and stepping into the distance'.<sup>36</sup> When a mountaineer has lost his way [sich versteigen] on a rock face and cannot get any further without help, he has dared to climb too high without adequate knowledge of the structure of the mountain. This is how Binswanger sees the extravagance of the schizoid psychopath, indeed extravagance as a possibility in human life in general, when man, aspiring to a higher viewpoint, to an ideal way of observation, to 'overcome the "weight of the earth" [Erdenschwere] and lift himself above the pressure and the "fear of the earthly"',<sup>37</sup> has removed himself so far from the reliable foundation of experience that he has now become bogged down in a similarly hopeless situation. Extravagance in Binswanger's formulation thus means the 'unusual prevalence of the height of decision over the width of "experience".'<sup>38</sup> It is a 'condition of being cramped or held spellbound by a certain problematic point of human existence'.<sup>39</sup> Help thus consists in the lost or wandering person being brought back to earth and being given the possibility of a new beginning by means of broadened experience and the command of the situation that it brings with it.

Here it is not a question of individual characteristics but only of how the intellectual situation of human existence can be comprehended only on the basis of a spatial scheme.

### Front and back: man on the move

In establishing the scheme so far of vertical axis and horizontal plane, we have already simplified the situation in a way which can no longer be maintained. When we took as our starting point the fact that man can turn in a circle and in doing so turn towards any point at will, and that in doing so the definitions of front and back, left and right, could be interchanged at will as a result of this turning, we were, without giving it very much consideration, starting from the assumption of a person standing in a leisurely way, looking around in the landscape. In this way the image developed of a uniform horizontal plane, on which no direction is different from any other. In normal human life, that is, as long as man is occupied with some task, it is however quite different, and here a human being is certainly able to distinguish between front and back. If, for example, I am giving a talk in a lecture hall, then the 'front' is where my audience is sitting. I am standing facing them, and it would not occur to me to turn around, unless I wanted to write something on the board. Turning around would be contrary to the purpose of my activity, and my audience would no longer understand what I was saying. And for my audience, on the other hand, 'in front' is where the lectern stands. That is where their attention is directed, and it would not occur to them to turn around, unless perhaps they should be distracted by the sounds of a latecomer to the audience. And thus it is generally valid to say that 'in front' for a human being is the direction in which his or her attention is focused. So one discovers what is in front and what is behind one, not by standing idly around, but only when one is occupied with some task. It is from this activity alone that the surrounding space derives a certain orientation, and this then determines the directions, forward, backward and to one side.

This applies in the most original and vivid form when man approaches a spatially determined target; for here he not only turns his attention from his task, from a fixed position, but he also aims to reach his target himself by his own movement in space. In walking,

or driving, and so on, on a certain path in the direction of a target to be reached, the contrast between front and back acquires a quite definite, irreversible meaning, determined by the direction of the path. The movement of walking is trapped in this simple contrast of front and back. 'In front' is the direction in which the human being is walking. He must not lose sight of it, as long as he is on the move. Here he needs to be careful, using foresight in the literal sense, that is, the posture that looks ahead while walking and assesses the path ahead for possible obstacles and opportunities for better progress. 'Back' on the other hand is the road already travelled. It is no longer in one's line of vision and it is as though it no longer exists.

We can, of course, also look back. But to do so we must turn around, and to turn around we must pause in going forward, that is, interrupt our progress. There must always be a particular reason for this, whether the traveller hears steps behind him which make him uneasy, or feels tired and wants to make sure of the distance he has already come, in order to assess how much still lies ahead. The original movement, therefore, must always be interrupted in some way when one looks back at one's path. The look back may then be extended into observation of the whole panorama. It is then, but only then, that the landscape appears before one's eyes in its full extent. But each time, I must first stand still, that is, interrupt the movement of walking or driving.

Movement on one's way acquires at the same time a directly moral character, and from this there immediately arises the figurative meaning. Man strives to go forward or he draws back, and in this drawing back there is at the same time an ethical evaluation, namely the reproach of not having fulfilled a task. It is a failure, an avoidance of challenge, whether out of weakness or cowardice. The striving towards 'progress' is part of the basic purpose of human life, but this is accomplished only in continual struggle with an 'opponent'. The resistance which confronts his striving presents itself as a warlike image. Progress becomes battle.

But man can retrace his steps and return home. This is something quite different from drawing back; for in drawing back he keeps his eye on his objective, or on the opponent who is barring his way. He moves backwards, his feet feeling their way uncertainly, unable to see where he is going, and still ready to make a renewed forward effort at any moment. In drawing back, therefore, his

direction remains the same, and it is within this directedness that he is drawing back. But in going back, the human being actually turns around in order to make his way back. What was 'back' for him is now forward, and vice versa. And what, seen as a whole, is a return journey, now also becomes a journey forward, in so far as it is once again a distance to be traversed. Man can return with a clear conscience only when he has reached his goal and then returns home again, or when he has become resigned to giving up his goal as unattainable. The polarity of going and returning is thus different from that of pushing forward and drawing back.

The three forms of looking back, retreating and returning thus represent the three basic forms of natural forward movement in an opposite direction.

The dimension of width, the view to left and right, is here totally eliminated. Movement on one's way takes place only in the one-dimensional contrasting directions of forward and back. The width dimension of the terrain only comes into play if the path forks, that is, at a crossroads, or where the path is lost, with no direction, in a pathless terrain. Here the simple view of forward and back is not sufficient; here man must look around himself in order to find his true path. And it is only here that the full extent in width of the terrain becomes apparent.

These definitions are of great importance not only for the concrete experience of space, but also beyond that, for human life in general; for the journey is not some temporary or occasional resting-place, but describes a basic situation, perhaps *the* basic situation of man in the world, and thus becomes one of the great primal symbols of human life, which pervades its whole interpretation to such an extent that one can hardly draw a line between its 'literal' and 'figurative' meanings. Life is perceived as a lifelong journey, and man as a traveller on this journey, a 'homo viator'. In this journey, or movement, the concepts of front and back at the same time acquire a temporal meaning: in front of us is what lies before us in the future as a stretch of life still to be traversed, while behind us is the stretch of life's journey already completed, the past.

As far as behaviour on life's journey is concerned, it is just as with 'actual' travel in the spatially extended terrain: normally man faces forward, towards the future. But there are also moments of

looking back, of reflection, whether the human being is pleased at having reached his destination, or whether he has encountered difficulties and been forced by them to reconsider. However, there is no direct equivalent in the journey of life to returning or drawing back, although progress on this journey is also perceived as a battle, the battle of life.\* Man at the crossroads, faced with the choice between the right and the wrong road to take, is also one of the great primal symbols of human life.

If we immerse ourselves in this way in the symbolic meaning of front and back, we immediately notice the great difference between this and the relationship of above and below. In both cases, admittedly, it is a case of a contrast of values, which comes into being not just in the figurative meaning, but which leads to a wholly concrete experience of space, but this contrast has at times quite a different character. Aspiration to heights has a character quite different from pressing forward into the distance, and downfall from a high place is quite different from an exhausted collapse along the road.<sup>40</sup>

### Right and left sides

A further difference is found in the contrast between right and left. If we start from the movement of striding forwards, then in addition to the contrast of front and back there is also the sideways direction, extension into width, and while the first contrast designates a pronounced difference in values, the second is originally neutral in value. It is the direction of simple coexistence. But the sideways direction can develop in a double sense, either to left or right. This corresponds to the two sides of the symmetrically structured human body, in particular its two hands, which are mirror images of each other (while the mirror-like correspondence has the particular character that the two parts that correspond to each other cannot be brought into congruence with each other).

Neither of these two sides, geometrically speaking, is privileged before the other. They have fundamentally equal rights, and if it is necessary to decide between them (as with driving on the right- or

\* To what extent there is in a temporal context also such a thing as a return to an earlier point in time is a question discussed in my essay 'Das Nachholen des Versäumten', in *Maß und Vermessenheit des Menschen: philosophische Aufsätze* (Göttingen: 1962), p. 214 ff.

left-hand side of the road), this is only possible by means of an arbitrary convention. One can decide in favour of one direction or the other. And yet human beings are aware of a noticeable difference in value between them. The word 'right' in its original meaning, in terms of sensory perception, means straight in contrast to crooked or bent. It is linguistically related to 'correct' and 'righteous'. The 'right' is the correct. And if we transfer this meaning to the right-hand side, this contains the implication that it is singled out as the preferred, the correct side. The left side on the other hand is devalued, as the lesser, bad side. In juxtaposition, this results in a value judgement. The right side is the side that is accorded greater respect. The guest of honour is allowed to walk on the right; the younger person yields the right side to the older, the gentleman to the lady. The same tendency is found in superstitious practices. The right-hand side is the auspicious one, the left the sinister one. For example, it is considered a bad omen if one gets up using the left foot first.

This order of precedence is not preordained by nature. If we ignore the difficult question of whether the preference for the right hand is not conditioned by a certain asymmetry in the human body, both sides start out as equal in merit, and the decision as to which should have preference could well have gone the other way. And in some cases it has indeed gone the other way. In the Roman art of prophecy, birds flying to the left presaged good fortune, to the right they meant disaster, just as in a German folk superstition of today seeing a 'little sheep on the left' is an auspicious sign. Perhaps we can see these two tendencies together: precisely because the two directions, right and left, are in themselves symmetrically of equal value, they respond to an interpretative valuation placed on one of them by humans, and perhaps this is the basis of the suitability of this difference for a predictive interpretation.

## 4 The centre of space

### The question of the zero point of space

I will resist the temptation to pursue prematurely these metaphors, inherent in human nature itself, which in any case we will need to examine later in more detail. In this first chapter, I will attempt, to begin with, to work out the elementary spatial system that lies at the basis of human life. Here we must recall our earlier observation when we discussed the natural zero point of experienced space. If we regard man as the subject of his experience of space, then the obvious thing to do is to start from the concrete human being, how he is situated as a living being in space and how his own body determines the definitions of above and below, front and back, right and left. Thus one could take the zero point of this present perceived space, which is essentially our field of vision, to be the zero point of experienced space in general. This zero point of vision would then, as we know, be between the eyes, in the region of the root of the nose. If I look around to left and right, my visionary rays are in a sense the vectors of a system of polar coordinates, while I, the person seeing, am myself its zero point.

But as obvious as such a starting point may be, from the perspective of pure perceptive psychology, it does not after all correspond to the natural interpretation. Such a zero point may determine my temporary and incidentally changeable position in space, but not the central point of my space itself. Here we must return yet again to the singular double relationship between man and space: on the one hand, space stretches out around the human being, and belongs to his transcendental condition, but on the other hand man does not carry his space around with him as the snail carries its shell. But we do say, when looking at things impartially, that we move 'in' space, and this in the sense that we are in motion while space remains immobile. And yet again space is not independent of the subject, but even if I move 'in' space, it forms a specific system of reference related to the subject. These are relationships that are curiously entangled with each other, and we will for the time being keep as closely as possible to the naïve view of the person as yet unencumbered by philosophy.