

# THE ORDER OF THINGS

An Archaeology of the Human Sciences

# MICHEL FOUCAULT

A translation of Les Mots et les choses



VINTAGE BOOKS

A Division of Random House, Inc.
New York

# Contents-

ix

Foreword to the English edition

· ·		
Preface	•	xv
PAR	₹T I	
I Las Meninas		3
2 The prose of the wo	orld	17
I The four similit	udes	17
II Signatures		25
III The limits of th	e world	30
IV The writing of t		34
V The being of las		42
3 Representing		46
I Don Quixote		46
II Order		50
III The representati	on of the sign	Š8
IV Duplicated repre		63
V The imagination		67
VI Mathesis and 'ta		71
4 Speaking		78
I Criticism and co	mmentary	78
II General gramma	•	81
III The theory of th		92
IV Articulation	w	96
V Designation	•	104
VI Derivation		IIC
VII The quodrilater	al of language	11,5
1	- O O	

#### VINTAGE BOOKS EDITION, APRIL 1004

Capyright © 1970 by Random House, Inc.

All rights reserved under International and Pan-American Copyright Conventions. Published in the United States by Vintage Books, a division of Random House, Inc., New York. Originally published in the United States by Pantheon Books, a division of Random House, Inc., in 1971, and in France as Les Mots et les choses by Editions Gallimard. Copyright © 1966 by Editions Gallimard, and in Great Britain by Tavistock Publications Limited.

Library of Congress Cataloging in Publication Data
Foucault, Michel.
The order of things.
Translation of Les mots et les choses.
Reprint of the 1971 ed. published by Pantheon Books, New York, in series: World of man.

Includes bibliographical references.

7. Learning and scholarship. I. Title.

[AZiot.F6913 1973] 901.9 73-561

ISBN 0-679-73335-4

Frontispiece photo. @ 1990 by Archivi Alinari

Manufactured in the United States of America 13579C8642

#### CONTENTS

5 Classifying		125
I What th	e historians say	125
II Natural	•	128
III Structure		132
IV Characte	7	138
V Continui	ity and catastrophe	145
VI Monsters		150
VII The disc	ourse of nature	157
6 Exchanging		166
I The ana	lysis of wealth	166
II Money a		168
III Mercanti		174
IV The plea	lge and the prise	180
V The crea	tion of value	189
VI Utility	-	196
VII General	table	200
VIII Desige a	nd representation	208

### PART II

7 The limits of representation	217
I The age of history	217
II The measure of labour	221
III The organic structure of beings	226
IV Word inflection	232
V Ideology and criticism	236
VI Objective syntheses	243
8 Labour, life, language	250
I The new empiricities	250
II Ricardo	253
III Cuvier	263
IV Bopp	280
V Language become object	294
vi	

34 134 1 11	
Man and his doubles	303
I The return of language	303
II The place of the king	307
III The analytic of finitude	312
IV The empirical and the transcendental	318
V The 'cogito' and the unthought	322
VI The retreat and return of the origin	328
1/11 Dr	-

9

CONTENTS

344

VII Discourse and man's being	33.
VIII The anthropological sleep	340
10 The human sciences	344

I The three faces of knowledge	344
II The form of the human sciences	348
III The three models	355
IV History	367

V	Psychoanalysis and ethnology	37
	In conclusion	38

caused by the absence of the king - an absence that is an artifice on the part of the painter. But this artifice both conceals and indicates another vacancy which is, on the contrary, immediate: that of the painter and the spectator when they are looking at or composing the picture. It may be that, in this picture, as in all the representations of which it is, as it were, the manifest essence, the profound invisibility of what one sees is inseparable from the invisibility of the person seeing - despite all mirrors, reflections, imitations, and portraits. Around the scene are arranged all the signs and successive forms of representation; but the double relation of the representation to its model and to its sovereign, to its author as well as to the person to whom it is being offered, this relation is necessarily interrupted. It can never be present without some residuum, even in a representation that offers itself as a spectacle. In the depth that traverses the picture, hollowing it into a fictitious recess and projecting it forward in front of itself, it is not possible for the pure felicity of the image ever to present in a full light both the master who is representing and the sovereign who is being represented.

Perhaps there exists, in this painting by Velàzquez, the representation as it were, of Classical representation, and the definition of the space it opens up to us. And, indeed, representation undertakes to represent itself here in all its elements, with its images, the eyes to which it is offered, the faces it makes visible, the gestures that call it into being. But there, in the midst of this dispersion which it is simultaneously grouping together and spreading out before us, indicated compellingly from every side, is an essential void: the necessary disappearance of that which is its foundation – of the person it resembles and the person in whose eyes it is only a resemblance. This very subject – which is the same – has been elided. And representation, freed finally from the relation that was impeding it, can offer itself as representation in its pure form.

#### NOTES

[1] See frontispiece.

#### CHAPTER 2

## The Prose of the World

#### I THE FOUR SIMILITUDES

Up to the end of the sixteenth century, resemblance played a constructive role in the knowledge of Western culture. It was resemblance that largely guided exegesis and the interpretation of texts; it was resemblance that organized the play of symbols, made possible knowledge of things visible and invisible, and controlled the art of representing them. The universe was folded in upon itself: the earth echoing the sky, faces seeing themselves reflected in the stars, and plants holding within their stems the secrets that were of use to man. Painting imitated space. And representation – whether in the service of pleasure or of knowledge – was posited as a form of repetition: the theatre of life or the mirror of nature, that was the claim made by all language, its manner of declaring its existence and of formulating its right of speech.

We must pause here for a while, at this moment in time when resemblance was about to relinquish its relation with knowledge and disappear, in part at least, from the sphere of cognition. How, at the end of the sixteenth century, and even in the early seventeenth century, was similitude conceived? How did it organize the figures of knowledge? And if the things that resembled one another were indeed infinite in number, can one, at least, establish the forms according to which they might resemble one another?

The semantic web of resemblance in the sixteenth century is extremely rich: Amicitia, Aequalitas (contractus, consensus, matrimonium, societas, pax, et similia), Consonantia, Concertus, Continuum, Paritas, Proportio, Similitudo, Conjunctio, Copula[1]. And there are a great many other notions that intersect, overlap, reinforce, or limit one another on the surface of thought. It is enough for the moment to indicate the principal figures that determine the knowledge of resemblance with their articulations. There are four of these that are, beyond doubt, essential.

First of all, convenientia. This word really denotes the adjacency of places more strongly than it does similitude. Those things are 'convenient' which come sufficiently close to one another to be in juxtaposition; their edges touch, their fringes intermingle, the extremity of the one also denotes the beginning of the other. In this way, movement, influences, passions, and properties too, are communicated. So that in this hinge between two things a resemblance appears. A resemblance that becomes double as soon as one attempts to unravel it: a resemblance of the place, the site upon which nature has placed the two things, and thus a similitude of properties; for in this natural container, the world, adjacency is not an exterior relation between things, but the sign of a relationship, obscure though it may be. And then, from this contact, by exchange, there arise new resemblances; a common regimen becomes necessary; upon the similitude that was the hidden reason for their propinquity is superimposed a resemblance that is the visible effect of that proximity. Body and soul, for example, are doubly 'convenient': the soul had to be made dense, heavy, and terrestrial for God to place it in the very heart of matter. But through this propinquity, the soul receives the movements of the body and assimilates itself to that body, while 'the body is altered and corrupted by the passions of the soul'[2]. In the vast syntax of the world, the different beings adjust themselves to one another; the plant communicates with the animal, the earth with the sea, man with everything around him. Resemblance imposes adjacencies that in their turn guarantee further resemblances. Place and similitude become entangled: we see mosses growing on the outsides of shells, plants in the antlers of stags, a sort of grass on the faces of men; and the strange zoophyte, by mingling together the properties that make it similar to the plants as well as to the animals, also juxtaposes them[3]. All so many signs of 'convenience'.

Convenientia is a resemblance connected with space in the form of a graduated scale of proximity. It is of the same order as conjunction and adjustment. This is why it pertains less to the things themselves than to the world in which they exist. The world is simply the universal 'convenience' of things; there are the same number of fishes in the water as there are animals, or objects produced by nature or man, on the land (are there not fishes called Episcopus, others called Catena, and others called Priapus?); the same number of beings in the water and on the surface of the earth as there are in the sky, the inhabitants of the former corresponding with those of the latter; and lastly, there are the same number of beings in the whole of creation as may be found eminently contained in God himself,

As with respect to its vegetation the plant stands convenient to the brute beast, so through feeling does the brutish animal to man, who is conformable to the rest of the stars by his intelligence; these links proceed so strictly that they appear as a rope stretched from the first cause as far as the lowest and smallest of things, by a reciprocal and continuous connection; in such wise that the superior virtue, spreading its beams, reaches so far that if we touch one extremity of that cord it will make tremble and move all the rest[5].

The second form of similitude is aemulatio: a sort of 'convenience' that has been freed from the law of place and is able to function, without motion, from a distance. Rather as though the spatial collusion of convenientia had been broken, so that the links of the chain, no longer connected, reproduced their circles at a distance from one another in accordance with a resemblance that needs no contact. There is something in emulation of the reflection and the mirror: it is the means whereby things scattered through the universe can answer one another. The human face, from afar, emulates the sky, and just as man's intellect is an imperfect reflection of God's wisdom, so his two eyes, with their limited brightness, are a reflection of the vast illumination spread across the sky by sun and moon; the mouth is Venus, since it gives passage to kisses and words of love; the nose provides an image in miniature of Jove's sceptre and Mercury's staff[6]. The relation of emulation enables things to imitate one another from one end of the universe to the other without connection or proximity: by duplicating itself in a mirror the world abolishes the distance proper to it; in this way it overcomes the place alloted to each thing. But which of these reflections coursing through space are the original images? Which is the reality and which the projection? It is often not possible to say, for emulation is a sort of natural twinship existing in

things; it arises from a fold in being, the two sides of which stand immediately opposite to one another. Paracelsus compares this fundamental duplication of the world to the image of two twins 'who resemble one another completely, without its being possible for anyone to say which of them brought its similitude to the other' [7].

However, emulation does not leave the two reflected figures it has confronted in a merely inert state of opposition. One may be weaker, and therefore receptive to the stronger influence of the other, which is thus reflected in his passive mirror. Are not the stars, for example, dominant over the plants of the earth, of which they are the unchanged model, the unalterable form, and over which they have been secretly empowered to pour the whole dynasty of their influences? The dark earth is the mirror of the star-sown sky, but the two rivals are neither of equal value nor of equal dignity in that tournament. The bright colours of the flowers reproduce, without violence, the pure form of the sky. As Crollius says:

The stars are the matrix of all the plants and every star in the sky is only the spiritual prefiguration of a plant, such that it represents that plant, and just as each herb or plant is a terrestrial star looking up at the sky, so also each star is a celestial plant in spiritual form, which differs from the terrestrial plants in matter alone . . . , the celestial plants and herbs are turned towards the earth and look directly down upon the plants they have procreated, imbuing them with some particular virtue [8].

But the list may remain open, and the untroubled mirror reflect only the image of 'two wrathful soldiers'. Similitude then becomes the combat of one form against another - or rather of one and the same form separated from itself by the weight of matter or distance in space. Man as Paracelsus describes him is, like the firmament, 'constellated with stars', but he is not bound to it like 'the thief to his galley-oar, the murderer to the wheel, the fish to the fisherman, the quarry to the huntsman'. It pertains to the firmament of man to be 'free and powerful', to 'bow to no order', and 'not to be ruled by any other created beings'. His inner sky may remain autonomous and depend only upon itself, but on condition that by means of his wisdom, which is also knowledge, he comes to resemble the order of the world, takes it back into himself and thus recreates in his inner firmament the sway of that other firmament in which he sees the glitter of the visible stars. If he does this, then the wisdom of the mirror will in turn be reflected back to envelop the world in which it has been placed; its great ring will spin out into the depths of the heavens,

and beyond; man will discover that he contains 'the stars within himself..., and that he is thus the bearer of the firmament with all is influences [9].

Emulation is posited in the first place in the form of a mere reflection, furtive and distant; it traverses the spaces of the universe in silence. But the distance it crosses is not annulled by the subtle metaphor of emulation; it remains open to the eye. And in this duel, the two confronting figures seize upon one another. Like envelops like, which in turn surrounds the other, perhaps to be enveloped once more in a duplication which can continue ad infinitum. The links of emulation, unlike the elements of convenientia, do not form a chain but rather a series of concentric circles reflecting and rivalling one another.

The third form of similitude is analogy. An old concept already familiar to Greek science and medieval thought, but one whose use has probably become different now. In this analogy, convenientia and aemulatio are superimposed. Like the latter, it makes possible the marvellous confrontation of resemblances across space; but it also speaks, like the former, of adjacencies, of bonds and joints. Its power is immense, for the similitudes of which it treats are not the visible, substantial ones between things themselves; they need only be the more subtle resemblances of relations. Disencumbered thus, it can extend, from a single given point, to an endless number of relationships. For example, the relation of the stars to the sky in which they shine may also be found: between plants and the earth, between living beings and the globe they inhabit, between minerals such as diamonds and the rocks in which they are buried, between sense organs and the face they animate, between skin moles and the body of which they are the secret marks. An analogy may also be turned around upon itself without thereby rendering itself open to dispute. The old analogy of plant to animal (the vegetable is an animal living head down, its mouth - or roots - buried in the earth), is neither criticized nor disposed of by Cesalpino; on the contrary, he gives it added force, he multiplies it by itself when he makes the discovery that a plant is an upright animal, whose nutritive principles rise from the base up to the summit, channelled along a stem that stretches upwards like a body and is topped by a head -spreading flowers and leaves: a relation that inverts but does not contradict the initial analogy, since it places 'the root in the lower part of the plant and the stem in the upper part, for the venous network in animals also begins in the lower part of the belly, and the principal vein rises up to the heart and head [10].

This reversibility and this polyvalency endow analogy with a universal field of application. Through it, all the figures in the whole universe can be drawn together. There does exist, however, in this space, furrowed in every direction, one particularly privileged point: it is saturated with analogies (all analogies can find one of their necessary terms there), and as they pass through it, their relations may be inverted without losing any of their force. This point is man: he stands in proportion to the heavens, just as he does to animals and plants, and as he does also to the earth, to metals, to stalactites or storms. Upright between the surfaces of the universe, he stands in relation to the firmament (his face is to his body what the face of heaven is to the ether; his pulse beats in his veins as the stars circle the sky according to their own fixed paths; the seven orifices in his head are to his face what the seven planets are to the sky); but he is also the fulcrum upon which all these relations turn, so that we find them again, their similarity unimpaired, in the analogy of the human animal to the earth it inhabits: his flesh is a glebe, his bones are rocks, his veins great rivers, his bladder is the sea, and his seven principal organs are the metals hidden in the shafts of mines[11]. Man's body is always the possible half of a universal atlas. It is well known how Pierre Belon drew, and drew in the greatest detail, the first comparative illustration of the human skeleton and that of birds: in it, we see

the pinion called the appendix which is in proportion to the wing and in the same place as the thumb on the hand; the extremity of the pinion which is like the fingers in us . . . ; the bone given as legs to the bird corresponding to our heel; just as we have four toes on our feet, so the birds have four fingers of which the one behind is proportionate to the big toe in us[12].

So much precision is not, however, comparative anatomy except to an eye armed with nineteenth-century knowledge. It is merely that the grid through which we permit the figures of resemblance to enter our knowledge happens to coincide at this point (and at almost no other) with that which sixteenth-century learning had laid over things.

In fact, Belon's description has no connection with anything but the positivity which, in his day, made it possible. It is neither more rational nor more scientific than an observation such as Aldrovandi's comparison of man's baser parts to the fouler parts of the world, to Hell, to the darkness of Hell, to the damned souls who are like the excrement of the Universe[13]; it belongs to the same analogical cosmography as the comparison, classic in Crollius's time, between apoplexy and tempests: the storm begins when the air becomes heavy and agitated, the apoplectic attack at the moment when our thoughts become heavy and disturbed; then the clouds pile up, the belly swells, the thunder explodes and the bladder bursts; the lightning flashes and the eyes glitter with a terrible brightness, the rain falls, the mouth foams, the thunderbolt is unleashed and the spirits burst open breaches in the skin; but then the sky becomes clear again, and in the sick man reason regains ascendancy [14]. The space occupied by analogies is really a space of radiation. Man is surrounded by it on every side; but, inversely, he transmits these resemblances back into the world from which he receives them. He is the great fulcrum of proportions - the centre upon which relations are concentrated and from which they are once again reflected.

Lastly, the fourth form of resemblance is provided by the play of sympathies. And here, no path has been determined in advance, no distance laid down, no links prescribed. Sympathy plays through the depths of the universe in a free state. It can traverse the vastest spaces in an instant: it falls like a thunderbolt from the distant planet upon the man ruled by that planet; on the other hand, it can be brought into being by a simple contact - as with those 'mourning roses that have been used at obsequies' which, simply from their former adjacency with death, will render all persons who smell them 'sad and moribund' [15]. But such is its power that sympathy is not content to spring from a single contact and speed through space; it excites the things of the world to movement and can draw even the most distant of them together. It is a principle of mobility: it attracts what is heavy to the heaviness of the earth, what is light up towards the weightless ether; it drives the root towards the water, and it makes the great yellow disk of the sunflower turn to follow the curving path of the sun. Moreover, by drawing things towards one another in an exterior and visible movement, it also gives rise to a hidden interior movement - a displacement of qualities that take over from one another in a series of relays: fire, because it is warm and light, rises up into the air, towards which its flames untiringly strive; but in doing so it loses its dryness (which made it akin to the earth) and so acquires humidity (which links it to water and air); it disappears therefore into light vapour, into blue smoke, into clouds: it has become air. Sympathy is an instance of the Same so strong and so insistent that it will not rest content to be merely one of the forms of likeness; it has the dangerous power of

them, of causing their individuality to disappear – and thus of rendering them foreign to what they were before. Sympathy transforms. It alters, but in the direction of identity, so that if its power were not counterbalanced it would reduce the world to a point, to a homogeneous mass, to the featureless form of the Same: all its parts would hold together and communicate with one another without a break, with no distance between them, like those metal chains held suspended by sympathy to the attraction of a single magnet [16].

This is why sympathy is compensated for by its twin, antipathy. Antipathy maintains the isolation of things and prevents their assimilation; it encloses every species within its impenetrable difference and its propensity to continue being what it is:

It is fairly widely known that the plans have hatreds between themselves . . . it is said that the olive and the vine hate the cabbage; the cucumber flies from the olive . . . Since they grow by means of the sun's warmth and the earth's humour, it is inevitable that any thick and opaque tree should be pernicious to the others, and also the tree that has several roots[17].

And so to infinity, through all time, the world's beings will hate one another and preserve their ferocious appetites in opposition to all sympathy.

The rat of India is pernicious to the crocodile, since Nature has created them enemies; in such wise that when that violent reptile takes his pleasure in the sun, the rat lays an ambush for it of mortal subtlety; perceiving that the erocodile, lying unaware for delight, is sleeping with its jaws agape, it makes its way through them and slips down the wide throat into the crocodile's belly, gnawing through the entrails of which, it emerges at last from the slain beast's bowel.

But the rat's enemies are lying in wait for it in their turn: for it lives in discord with the spider, and 'battling with the aspic it oftso dies'. Through this play of antipathy, which disperses them, yet draws them with equal force into mutual combat, makes them into murderers and then exposes them to death in their turn, things and animals and all the forms of the world remain what they are.

The identity of things, the fact that they can resemble others and be drawn to them, though without being swallowed up or losing their singularity - this is what is assured by the constant counterbalancing of

sympathy and antipathy. It explains how things grow, develop, intermingle, disappear, die, yet endlessly find themselves again; in short, how there can be space (which is nevertheless not without landmarks or repetitions, not without havens of similitude) and time (which nevertheless allows the same forms, the same species, the same elements to reappear indefinitely).

Though yet of themselves the four bodies (water, air, fire, earth) be simple and possessed of their distinct qualities, yet forasmuch as the Creator has ordained that the elementary bodies shall be composed of mingled elements, therefore are their harmonies and discordancies remarkable, as we may know from their qualities. The element of fire is hot and dry; it has therefore an antipathy to those of water, which is cold and damp. Hot air is humid, cold earth is dry, which is an antipathy. That they may he brought into harmony, air has been placed between fire and water, water between earth and air. Inasmuch as the air is hot, it marches well with fire and its humidity goes well with that of water. The humidity of water is heated by the heat of the air and brings relief to the cold dryness of the earth[18].

Because of the movement and the dispersion created by its laws, the sovereignty of the sympathy-antipathy pair gives rise to all the forms of resemblance. The first three similitudes are thus all resumed and explained by it. The whole volume of the world, all theadjacencies of 'convenience', all the echoes of emulation, all the linkages of analogy, are supported, maintained, and doubled by this space governed by sympathy and antipathy, which are ceaselessly drawing things together and holding them apart. By means of this interplay, the world remains identical; resemblances continue to be what they are, and to resemble one another. The same remains the same, riveted onto itself.

#### II SIGNATURES

And yet the system is not closed. One aperture remains: and through it the whole interplay of resemblances would be in danger of escaping from itself, or of remaining hidden in darkness, if there were not a further form of similitude to close the circle – to render it at once perfect and manifest.

Convenientia, aemulatio, analogy, and sympathy tell us how the world must fold in upon itself, duplicate itself, reflect itself, or form a chain with

separated itself from all other language with a deep scission, only by forming a sort of 'counter-discourse', and by finding its way back from the representative or signifying function of language to this raw being that had been forgotten since the sixteenth century.

It is possible to believe that one has attained the very essence of literature when one is no longer interrogating it at the level of what it says but only in its significant form: in doing so, one is limiting one's view of language to its Classical status. In the modern age, literature is that which compensates for (and not that which confirms) the signifying function of language. Through literature, the being of language shines once more , on the frontiers of Western culture - and at its centre - for it is what has been most foreign to that culture since the sixteenth century; but it has also, since this same century, been at the very centre of what Western culture has overlain. This is why literature is appearing more and more as that which must be thought; but equally, and for the same reason, as that which can never, in any circumstance, be thought in accordance with a theory of signification. Whether one analyses it from the point of view of what is signified (of what it is trying to say, of in 'ideas', of what it promises, or of what it commits one to) or from the point of view of that which signifies (with the help of paradigms borrowed from linguistics or psychoanalysis) matters little: all that is merely incidental. In both cases one would be searching for it outside the ground in which, as regards our culture, it has never ceased for the past century and a half to come into being and to imprint itself. Such modes of decipherment belong to a Classical situation of language - the situation that predominated during the seventeenth century, when the organization of signs became binary, and when signification was reflected in the form of the representation; for at that time literature really was composed of a signifying element and a signified content, so that it was proper to analyse it accordingly. But from the nineteenth century, literature began to bring language back to light once more in its own being: though not as it had still appeared at the end of the Renaissance. For now we no longer have that primary, that absolutely initial, word upon which the infinite movement of discourse was founded and by which it was limited; henceforth, languagewasto grow with no point of departure, no end, and no promise. It is the traversal of this futile yet fundamental space that the text of literature traces from day to day.

#### NOTES

- [1] P. Grégoire, Syntaxeon artis mirabilis (Cologne, 16to, p. 28).
- [2] G. Porta, La Physionomie humaine (Fr. trans. 1655, p. 1).
- [3] U. Aldrovandi, Monstrorum historia (Bononiae, 1647, p. 663).
- [4] T. Campanella, Realis philosophia (Frankfurt, 1623, p. 98).
- [5] G. Porta, Magie naturelle (Fr. trans. Rouen, 1650, p. 22).
- [6] Aldrovandi, Monstrorum historia, p. 3.
- [7] Paracelsus, Liber Paramirum (trans. Grillot de Givry, Paris, 1913, P. 3).
- [8] O. Crollius, Traité des signatures (Fr. trans. Lyon, 1624, p. 18).
- [9] Paracelsus, lac. cit.
- [10] Cesalpino, De plantis libri, XVI (1583).
- [11] Crollius, Traité des signatures, p. 88.
- [12] P. Belon, Histoire de la nature des oiseaux (Paris, 1555, p. 37).
- [13] Aldrovandi, Monstrorum historia, p. 4.
- [14] Crollius, Traité des signatures, p. 87.
- [13] Porm, Magie naturelle, p. 72.
- [16] Ibid.
- [17] J. Cardan, De la subtilité (Fr. trans. Paris, 1656, p. 154).
- [18] S.G.S. Annotations au Grand Miroir du Monde de Duchesne, p. 498.
- [19] Paracelsus, Die 9 Bücher der Natura Rerum (Works, ed. Suhdorff, vol. IX, p. 393).
- [20] Crollius, Traité des signatures, p. 4.
- [21] Ibid., p. 6.
- [22] Ibid., p. 6.
- [23] Ibid., p. 33.
- [24] Ibid., pp. 33-4.
- [25] J. Cardan, Métoposcopie (1658 edn., pp. iii-viii).
- [26] Paracelsus, Archidoxis magica (Fr. trans. 1909, pp. 21-3).
- [27] T. Campanella, De sensu rerum et magia (Frankfurt, 1620).
- [28] P. Ramus, Grammaire. (Paris, 1572, p. 3 and pp. 125-6).
- [29] Claude Duret, Trésor de l'histoire des langues (Cologne, 1613, p. 40).
- [30] Duret, loc. cit.
- [31] In Mithridates, J. M. Gestier cites onomatopeias of course, but only as exceptions to a rule (2nd edn., Tiguri, 1610, pp. 3-4).
- [32] Except with regard to languages, since the alphabet is the raw material of language. Cf. Chapter II of Gesner's Mithridates. The first alphabetical encyclopaedia is L. Motéri's Grand Dictionnaire historique of 1674.
- [33] La Croix du Maine, Les cents Buffets pour diesser une bibliothèque parfaite (1583).
- [34] Blaise de Vigenère, Traité des chiffres (Paris, 1537, pp. 1 and 2); C. Duret, Trésor de l'histoire des langues, pp. 19 and 20.
  - [35] Montaigne, Essais (1580-8, livre III, chap. XIII).