The philosophy of Pierre Gassendi: science and belief in seventeenth-century Paris and Provence

Thesis

How to cite:

For guidance on citations see FAQs.

© 1985 The Author

Version: Version of Record
THE PHILOSOPHY OF PIERRE GASSENDI

SCIENCE AND BELIEF IN SEVENTEENTH-CENTURY PARIS AND PROVENCE

by


A thesis offered for the degree of Ph.D.
in the History of Science, at the Faculty
of Arts, The Open University.

VOL I

Submitted: September 1985

Author's number: HDL 2097
Date of submission: 23 September 1985
Date of award: 5 August 1986
HIGHER DEGREES OFFICE
LIBRARY AUTHORISATION FORM

STUDENT: William Edward Anselm Macin
SERIAL NO: HDL 2097
DEGREE: Ph.D.
TITLE OF THESIS: The Philosophy of Pierre Gassendi
SCIENCE AND BELIEF IN SEVENTEENTH-CENTURY PARIS AND PROVENCE

I confirm that I am willing that my thesis be made available to readers and maybe photocopied, subject to the discretion of the Librarian.

SIGNED: William
DATE: 1 Nov 1987

The Open University
Higher Degrees Office
- 9 Nov 1987

Ack. 
Pass to. 
Disposal.
ABSTRACT

THE PHILOSOPHY OF PIERRE GASSENDI
SCIENCE AND BELIEF IN SEVENTEENTH-CENTURY PARIS AND PROVENCE

This is a multi-disciplinary study which examines the life and thought of Pierre Gassendi as a whole and in the context of seventeenth-century Paris and Provence. There are sections on the political, religious and social fabric of Provence, on the Catholic Church and on Gassendi's view of his clerical function, on Absolute Monarchy and his intimate involvement with the theory and practice of politics. The justification for the sheer weight of minute investigative detail used in the historical side of this inquiry is that the printed texts of Gassendi, and of most of his circle, cannot be properly evaluated without this sort of inside knowledge of the circumstances in which they were written. One fruit of this method is the discovery that Gassendi was developing in almost total secrecy, from as early as 1618, his own Copernican physics, which in many ways must be regarded as a prototype of that deployed seventy years later in the PRINCIPIA. Evidence to support this argument is in the sections on the Galley Experiment of 1640, Gravitation, Atomism and Astronomy. It is the extent of Gassendi's co-operation with mathematicians, astronomers and scientists, and the fact that most of them must have shared the secret of his working assumption, that is the most remarkable aspect of the case. It indicates that all those contemporary rumours of underground scientific organisations were well-founded. Gassendi's secret Copernicanism seems to pale into insignificance beside my claim that he was not a believing Christian. A hitherto unclassified form of sceptical materialism, a sort of Pythagorean pantheism, was a major source of his interest in atomism, astronomy and nature in general. The evidence for this is presented in the sections on the Church, Life and Souls, Friendship, Atoms and Indivisibles. Whilst these views were relevant to his motivation they had, arguably, no direct influence on the structure of his science. This was constructed on the principle of separating metaphysics from science altogether and, within bounds of any given inquiry, keeping hypotheses—however attractive—separate from the observations and their analysis.
In the event of the acceptance of this thesis for the degree of Doctor of Philosophy, one copy is to be deposited in the University Library. This declaration does not affect the rights of reproduction, storage, transmission by any mechanical device, which are reserved to the author and remain subject to his written permission.

September 1985

W.E.A. MAKIN
THE PHILOSOPHY OF PIERRE GASSENDI
SCIENCE AND BELIEF IN SEVENTEENTH-CENTURY PARIS AND PROVENCE

Material in section A (iv) was first published in History Sixth 1 1977, 'Images of the Fronde in Provence'. A general article based on this thesis appeared in The Times Higher Education Supplement, 16 December 1983, entitled Navigating for Newton. No part of the thesis has been submitted for any other degree or qualification.
It is a sobering thought that almost half my life has been spent in the company of Gassendi and his associates. Inevitably the following acknowledgements will miss out some of those who have helped me along the way.

My old masters at Manchester Grammar School, particularly Chippy Woods (geography); Mighty Morgan (general science); Harris Tweed (maths.); Fred Hyslop, Billy Hulme and Neville Critchley (irregular verbs, ancient and modern). Brian Phythian (those school trips to Avignon and Paris), Holly Jo Armstrong, who lent me Ryle's 'Concept of Mind'—my first encounter with Gassendi. A.O.J. Cockshut, who first kindled my interest in the cultural dimensions of religious unbelief. Dennis Witcombe, who read to us extracts from the science/civil war debate in 'Past and Present'. Happy Jack Horsfield, who invited me to give a talk on 'The Age of Louis XIV—a balance of faith and reason'. (I still have the notes: Gassendi was described as 'an Italian abbe!')


Material assistance was given by a Leverhulme-Harmsworth scholarship for a year's study at the Sorbonne (1968-9). The rest of the research abroad was done as a Laming Fellow of Queen's in 1970-2. I have had no financial assistance of any kind from any official body in writing this thesis. Therefore, I owe a special debt to Our Lady of Walsingham, to my wife and to my parents, who have shown more confidence in me than I deserve. My mother is responsible for the typescripts.

I am grateful to the following libraries: the Maison Francaise, Balliol College, the Bibliothèque Nationale, the Bibliothèque de l'Institut, Bibliothèque de la Sorbonne, the Vatican Library; the Bibliothèque Inguimbertine, the Bibliothèque Méjanes, the Musée Maritime de Marseilles; the university libraries of Oxford, Cambridge, Aix-en-Provence, Manchester (John Rylands); the Warburg Institute, the Manuscript Room at the British Museum and the Rare Books Room at Cambridge. His Grace the Duke of Devonshire and his Trustees allowed me access to the archives at Chatsworth. The Public Library in Bedford obtained unusual books from all sides with amazing swiftness. Thanks to N. Jardine I was fortunate enough to obtain Gassendi's OPERA OMNIA from the Whipple Library on an indefinite loan. This privilege saved much effort and expense. The Whipple Library have allowed me to borrow generously from their rich collections.

contd.
I am grateful to John Henry for a permanent loan of his Open University thesis on active matter. Fr. Brundell, with characteristic generosity, sent me from Australia his own thesis on Gassendi. Marianne Calmann kindly lent me a copy of her thesis on the Jewish community at Carpentras, and my former parish priest, Fr. Stanesby, lent me his thesis on science and religion. Both the latter are since published.

'Perpetual' students tend to have an image of an ideal supervisor who will bring to their thesis the dedication of Albert Schweitzer and the wit of Terence Wogan. David Goodman has forced me to think about the meaning behind the material. He has always tried to help me to articulate my own views rather than impose his own. His uncanny (facial) resemblance to Cassendi is surely fortuitous.

Finally, I should like to acknowledge my particular debt to Dr Whiteside. Although there is much in this thesis with which he would disagree, or regard as irrelevant, the chapter on ASTRONOMY—a late suggestion by my supervisor—would never have taken its present form if he had not been so generous of his time, ideas and expertise in response to an unsolicited approach from an unknown schoolmaster.
What's that ye say? His name means nocht t'ye?
Why a' the grate names in history
Mean nocht to maist folk but "ideas o'their ain".
If the dead awaken
They'd find, at best, the opposite
O'all they'd really tocht.
Rows o' pegs by the college chapel
Hung wi' hand-me-downs o' thocht.

H. Macdiarmid
'Gas from a Haggis'

Notre époque est scolaire et inculte. Chacun est un professeur qui ne sait rien et veut l'apprendre à d'autres.

Jean Cocteau

Our age is scholarly, yet uncivilised. Each of us is an ignorant schoolmaster, keen to pass on our ignorance to others.
# Table of Contents

## Volume I

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction and Concept Analysis</td>
<td>1-xxviii</td>
</tr>
<tr>
<td>Illustrations</td>
<td>xxix</td>
</tr>
<tr>
<td>Abbreviations</td>
<td>xxx</td>
</tr>
</tbody>
</table>

### Section A

**Provence: Mentalities**

1. Communications
2. Religion
3. Law
4. A Sense of Community
5. Precedence and Police

### Section B

**Gassendi and the Church: The Limits of Scepticism**

6. The Secret
7. The Sword of Caesar
8. The Clever Fellows
9. Science and Cannibalism

### Section C

**Absolute Monarchy**

10. The Secret
11. The Sword of Caesar
12. The Clever Fellows
13. Science and Cannibalism

## Volume II

### Section E

**Gassendi on Law and Souls: Classification, Origins and Evolution**

14. The Debt to Antiquity
15. Originality and Eclecticism
16. Atoms and Indivisibles
17. Atoms and Christianity
18. Towards a Social Morphology of Atomism

### Section F

**Gassendi and the Galley Experiment 1640**

19. Methodology
20. Concealment
21. Hypotheses and Evidence
22. Hypotheses and the Church
23. Astrology
24. Motive

### Section G

**Gassendi and Gravitation**

25. Methodology
26. Concealment
27. Hypotheses and Evidence
28. Hypotheses and the Church
29. Astrology
30. Motive

### Section H

**Gassendi, Astronomy and the Ideal of Objectivity**

31. Methodology
32. Concealment
33. Hypotheses and Evidence
34. Hypotheses and the Church
35. Astrology
36. Motive

### Section I

**Atoms and Indivisibles**

37. The Debt to Antiquity
38. Originality and Eclecticism
39. Atoms and Indivisibles
40. Atoms and Christianity
41. Towards a Social Morphology of Atomism

### Conclusion: Ancients and Moderns

42. Ancient and Modern

### Appendix I

**Gassendi's Suicide**

43. Gassendi's Suicide

### Appendix II

**Gassendi and Judaism**

44. Gassendi and Judaism

### Bibliography

45. Bibliography
'Here is an ocean of documentation in which a young scholar could easily be submerged.' In these words Professor Raymond Lebegue, the doyen of Peiresc studies, opened our discussion of possible source material for this thesis. He concluded, 'You will have to be something of a circus acrobat (saltimbanque), straddling three horses: history, literature, science.' Professor Lebegue, who had himself abandoned the task of editing the vast MS material of Peiresc's letters, pin-pointed two main problems in the study of Peiresc, Gassendi and their circle: the sheer bulk of material, both printed and in manuscript, and the unintelligibility of much of this material to the modern scholar. Why should this be? One reason is that our modern outlook and educational system are broadly geared to Cartesian norms. Gassendi and his circle belonged to a Renaissance culture; at once more Delphic and more eclectic in their discourse than Descartes.

The quantity of secondary source material on Gassendi is meagre. It would fill a shelf. This is in striking contrast to the whole libraries of critical analysis devoted to Descartes. Yet there is little, if any, historical or contemporary evidence for assuming that the relative importance of Gassendi and Descartes in their own day can be measured by the volume of academic book production in the twentieth century. Even Alexandre Koyré, whose faint praise for Gassendi blotted his name from the minds of a whole generation of historians of science, had to admit: 'Though, for us, he was not a great scientist—or even a scientist at all—for his contemporaries he was the equal, nay, the rival of Descartes.' Since, for Koyré,
Descartes was a kind of standard metre of authentic science, invariant with time or temperature, this was praise indeed. If anything Koyré understated the case. It would not be difficult to find numerous contemporary quotations to illustrate that at the time of Descartes' death, and for some time later, Gassendi was regarded as distinctively the first physicist and philosopher of Europe. But after about 1660 the eclipse of his reputation was swift. Since then the neglect of Gassendi studies has to a certain extent been self-reinforcing. As Nietzsche put it:

'Those swarms of historical eunuchs...their long telescopes trained on the most spectacular historical phenomena, scribble down nothing but criticism. It is a paradox that those whose historical training has stripped them of all will to exert any real influence—on life or action—grow obsessed with influences. It is they who persuade us that a numerous crowd of critics is the mark of a powerful historical influence; that of none or few a mark of failure.'

Sir George Clark condemned another failing in historians of ideas: their obsession with those theatrical individuals who appear to gratify our need to gaze into the workings of another's intimate thoughts:

'The introvert, who insists on his privacy, cuts a very poor figure among the historical personalities colourful enough to be plucked and pressed among the leaves of our textbooks. But sometimes more can be learned by scrutinising the low profile...by recognizing that there are certain secrets which the historian does not know, than by applying a crude and erroneous psychology.'

This is exactly the attitude to be adopted by the historian who wishes to understand the significance of Gassendi in his historical setting.

The idea of composing a biographical study which would reflect the psychology of a society through the individual, came to me through the study of Wilhelm Dilthey (1833 - 1906). Dilthey argued that, instead of viewing the history of individuals and the history of institutional, economic or demographic structures as antithetical the individual should be viewed as a mirror of the cultural limits
these structures impose. My original working title for this thesis was The Limits of Scepticism. But the limits imposed by social and institutional structures are as much a part of the individual's psychology as the books he read or the observations he made. That is why Sir George Clark insisted that the history of thought and science might be distinguished from the history of human institutions, but never cut off from it.

Rules for the Study of Scepticism

In the study of Gassendi we have a particularly acute problem concerning the historical assessment of scepticism and individual belief. For example, because Gassendi was a priest it is widely assumed that he must have been a devout Christian. This assumption is general among historians of science. Being a priest, or a clergyman, or having been a friend or even an occasional correspondent of a clergyman, is assumed to convey a blanket immunity from religious doubt. This attitude ignores the wide variety of reasons which existed for becoming a priest or, still more, a bishop, cardinal, etc. at that time. If religion was a primary motive, as was the case with the poet George Herbert, this was regarded as a sign of extraordinary sanctity. Gassendi's friend De Valois became a bishop because this was expected of a younger son in a princely family. We must not project our own rather strict notion of vocation—which has been developed in a secular society—on to the seventeenth century. It was not unacceptable to admit that family tradition, fear of poverty, the need to provide for relatives, even ambition, were usual reasons for seeking ordination. Until the Counter-Reformation began to bite, after our period ends, disorderly and immoral conduct among clergy was not regarded as abnormal or intolerable. A number of clergy were de facto atheists. There was therefore no reason why a priest should not doubt secretly, or
even become an unbeliever.

When considering the lack of evidence for unbelief, even in private papers, historians seem to close their minds to the fragility of human nature. Profession of religion—usually there was no choice as to which—was necessary for the possession of basic civil rights. An unbeliever was not just outside a church, but outside society. Atheism was next to diabolism. Torture and execution, however sparingly they were used, were not an empty threat. Unlike heretics, unbelievers had no motive to witness for their faith or to propagate it among others. No intelligent person would court martyrdom, or feel the least scruple about protecting himself, especially if he were a scientist with a complicated research programme to complete. This was not hypocrisy but common prudence—a virtue often praised by Gassendi and his circle. All Jews were banned from French soil on pain of being sent to the galleys. No Jews were sent to the galleys. Therefore there can have been no Jews in seventeenth-century France. This is how those who argue the unreality of atheism reason. In reality atheists were as slow to claim their free tickets to eternity as Jews were to claim their free cruises round the Mediterranean.

Not only were free-thinkers prudent, but they could be unscrupulous or deceitful. The danger is that we judge the seventeenth century by our standards of integrity. Modern statesmen and clergy have far more lofty ideals than those current in the age of Machiavelli and Hobbes. Study Shakespeare or Molière. In tragedy and comedy, hypocrisy is portrayed with a depth of understanding unparalleled since. Some seventeenth-century writers were quite capable of protesting a belief in witches, devils and angels, when they had no belief at all in the supernatural. This was regarded as a legitimate means of covering oneself from criticism; one might then
write with rather more than the permitted degree of intellectual freedom on some other matter. The refutation of atheism was a standard exercise. But there is no guarantee that those who refuted atheism actually believed in dogmatic Christianity. It was not unknown to use the device of presenting feeble arguments for God's existence, as a foil for serious arguments against, in order to spread unbelief in the very face of the censors.

There were very few accusations of atheism against individuals during this period. It was usually a personal quarrel or a political crisis which precipitated such charges. But that does not necessarily mean that the charge was malicious or untrue. Historians underrate the enormous power of friendship at this period. Whether or not they shared his unbelief, friends were unwilling to denounce a fellow humanist or scientist to the authorities. Even if they were not themselves hostile to religious bigotry or clerical interference, they would do everything possible to shield him. Gassendi's colleague and friend Roberval was said to be so black an atheist that eventually his friends began to shun him. But the thought of denouncing him to the authorities never crossed their minds. If the whole circle became secretly engaged in unbelief the chain became almost impossible to break. Even at death the unbelief would be concealed. Friends would remove compromising letters or memoirs. One known unbeliever might compromise the credibility of a whole network of academic friendships.

Another source of error is our attitude to the Bible. Almost all seventeenth-century people quoted the Bible. Only religious people are likely to cite the Bible today. But it does not follow that all seventeenth-century people were religious. The Bible was regarded as authoritative. There were all sorts of good reasons to use it to support an argument, whether or not one believed in
Christianity. Biblical knowledge was not evidence of deep religious feelings; any more than an ability to pass an O-level English examination today indicates a passionate attachment to English literature. It may conceal a life-long distaste. On the other hand, the modern student may legitimately suspect that failure to refer to the Bible, or disinclination to quote it, in any seventeenth-century writer is a strong indication of a secular outlook. This is not to apply double standards. The point is that our surviving evidence is weighted so heavily, for conventional reasons, in favour of religious affirmation that the smallest counter-indication balances a mass of protestations of orthodoxy.

Those who insist that we must go by documentation or publication alone have made a prejudgement. Perhaps an analogy will illustrate the methodological problem. Does the historian of Soviet Russia stick to the letter of the official documents? Does he measure any deviation from those documents by rigorously impartial criteria—so that he discounts the rumours, missing files, or unofficial underground papers? Or suppose we are writing the history of Soviet dissidence: is the profession of loyal communism to be taken at face-value? Are we to regard demands for human rights as made strictly within the limits of the Soviet constitution? This is the sort of problem confronted by the historian of unbelief in the seventeenth century. Traditional insistence on documentation and literal proof will often only be pulling the wool over our own eyes. The more radical the rejection of Christianity, the greater the incentive to lead by the nose what was regarded as an intellectually repressive system. The same applies in science. In Catholic countries there was a great incentive to conceal sympathy with Copernicanism. In Protestant countries no-one would voice open doubts about Genesis. But it is not the case, as has been too
readily assumed, that these are the guides to what people actually thought, or privately discussed. On the other hand, no-one was likely to conceal their scholasticism in secret papers (with the curious exception of Galileo, if the speculations of Wallace, Crombie and Carrugo are well-founded). The burden of proof does not lie on those expected to provide documentary evidence of unbelief. The proper course is to suspend judgement until a great deal of evidence from various sources has been accumulated to furnish a convincing picture of the individual's general assumptions and particular situation. In the nature of things, only someone who was tired of life would publish—as Bruno did—a treatise arguing that God was a geriatric. Whether or not it was speculation, or outright conviction, unbelief had to be enveloped in the form of a counter-treatise, slyly inserted into the folds of some orthodox-seeming work.

It is often asserted, quite falsely, that there were no models for unbelief at this time—that it was 'unthinkable'. Apart from manuscripts available then but which have since disappeared, like the Three Imposters, there were well-known treatises like Bodin's Heptaplonères or the Theophrastus Redivivus. Above all, classicism supplied the models. Neo-Platonism, as it developed from 300 BC to 400 AD, was not Christian at all—despite all the borrowings which the Church made from that source. Neo-Platonist writers of the Christian period wrote some of the most powerful attacks on Christianity in general, and the Bible in particular, made before the nineteenth century. Epicureanism, despised by twentieth-century historians of ideas, did not seem as crude then as it does now. It was an effective moral and scientific critique of Christianity. It could occasionally act in alliance with neo-Platonism. This was the mix favoured by Apollonius of Tyana, whose biography was something of a cult in Gassendi's circle. By the 1660s Epicureanism was regarded as 'establishment philosophy', if on an unofficial footing.
Historians sometimes confuse unbelief with immorality. As Gassendi was at pains to indicate, there is no simple or direct relationship. He showed that Epicurus lived a more saintly and austere life than the superstitious pagans and many later Christians. It is not necessary to be familiar with the novels of Graham Greene to make the observation that believers may also be great sinners. Historians frequently use 'pious' as a synonym for Christian. Pious, in its Greek sense, meant simply discharging obligations due to society and publicly respecting the gods. To move from an observation that someone is doing just that, to the inference that a deep Christian faith is the only possible explanation, is unwarranted. By the same token, it would be wrong to make immoral behaviour evidence of unbelief; although Gassendi recognized that amoral unbelievers, like the Cyrenians, existed at all times.

What did Gassendi believe? It is a question which indirectly relates to the whole thesis, but to which an answer can only be approximated. The term *achristian*, unfamiliar to modern ears, is perhaps the one which best sums up the diverse strands of the seventeenth-century intellectual's alienation from orthodoxy. There was a purely intellectual doubt, stimulated by science and scholarship, but supported by those who had much to gain from undermining clerical authority and traditional moralities. Underlying this was a revulsion from Christ and from the New Testament, which left its mark on Protestantism but was equally characteristic of Catholic free-thinkers. In this context the alleged hatred of Christ's person shown in the Marlowe-Raleigh-Harriot case rings absolutely true. Even a canonised Saint, Vincent de Paul, expressed something similar for a period of three to four years, by his own account, without once consciously rejecting the Church's authority. It is particularly marked in the Arianism of Milton and Newton, and in the attitudes of
Pierre Gassendi. G.K. Chesterton, in his Everlasting Man, is the only writer to have indicated the importance of the spiritual gulf which opened up between the Renaissance and the Counter-Reformation. He estimated it to have been a greater challenge to Christianity than either the enlightenment or Victorian agnosticism; not by virtue of its extent but by virtue of its intensity. In accounting for the silence of professional historians on this question we may say that the importance of unbelief in the seventeenth century has been overlooked because the rarity of absolute atheism has been allowed to mask the relative frequency of achristianity. An alienation from the person of Christ and the doctrines connected with his nature and teaching was not uncommon among the élite of early modern Europe. This élite was associated, directly or through intimate friendships, with the origins of modern science.

A book might be filled with quotations to show that for seventeenth-century intellectuals, whether they were secret free-thinkers or not, the argument that religion was necessary to keep the masses in order applied across the board. It was observed to be the case in antiquity, in Christendom, in the new worlds to east and west. Where Christianity was rejected on other grounds, social arguments were the last-ditch defence. Thinkers like Paolo Sarpi envisaged a secular society so well organised that religion would be superfluous, even for 'policing'. It is not possible to cling to the fiction that the seventeenth century was 'another country' or an 'alien mentality' incapable of questioning the supernatural. We are looking into eyes perhaps less cumbered with illusions than our own.

Whether religion did operate as an efficient social-order mechanism is another matter. The religious wars, civil and foreign, the spiralling of crime and vagrancy, suggested to a number of free-thinking contemporaries such as Sarpi, Naudé and Campanella, that
even here Christianity was inadequate. Gassendi and his circle continued to value Christianity for its social-order function, whilst finding it unsatisfactory at certain points. The manufacture of new moralities, Stoic, Epicurean or *honnête homme*, was aimed at the professional and administrative classes. It was in exactly these groups that the spread of *libertinage* was draining Christianity of its dogmatic content. Gassendi took this side of his work quite as seriously, if not more so, as the composition of formal treatises. So much so that he was accused of trying to recruit the nobility and royal officials into an Epicurean 'church', and to found a new religion like a second Mohammed. We cannot reject the idea that religion was of value to the social order as an invention of sociologists. It was basic to the way in which seventeenth-century thinkers envisaged the world. It is quite separate from the question of how widespread was the rejection of the supernatural. Marx said nothing about religion which would have been new to a member of Gassendi's circle, to a prince of the blood under Louis XIII, or a member of the curia under Urban VIII.

SECONDARY SOURCES
The quality of the commentary on Gassendi is uneven. I shall therefore deal firstly with those books which were most useful for understanding the historical Gassendi, and secondarily with those which are not without value.

In 1922 Fr. Sortais S.J. published the second volume of his *Philosophie Moderne depuis Bacon jusqu'à Leibniz*. Catholic writers on Gassendi, and most other Christian writers, remain terrified of the atheistic implications of atomic materialism. As a result they are concerned to establish two propositions about Gassendi: first, that he was a sincere Catholic and a devout Christian; second, that he was of absolutely no importance to philosophy or science.
Sometimes they support these positions with evidence; sometimes they rely on mere assertion. Fr. Sortais, on the other hand, seems to have been sufficiently confident of his faith not to feel the need for these elaborate precautions. Far from concealing Gassendi's unorthodoxy (which is evident to any unprejudiced reader) he was the first to pin-point it accurately in the text. He even takes the opportunity to set him right, as if continuing Gassendi's controversy with the Jesuits of 1622-3. Fr. Sortais' achievement is to have written the only study of Gassendi which brings an individual (as opposed to a mere collection of footnotes) before us. He has mastered the complicated text (no mean achievement in itself) and has particularly valuable suggestions about Gassendi's importance for science and his influence in Europe. The Marxist historian, Franz Borkenau, sneered at Gassendi's popularity among the Jesuits calling him their liebling (darling). It is one of the many paradoxes about Gassendi that his ruthless critique of scholasticism, and his controversies with individual Jesuits, were no obstacle to a personal sympathy which many of the Order felt towards him, even after death. Would it be too cynical to suggest that the Jesuits, regarded as masters of dissimulation in their own time, recognized that in Gassendi they were in the presence of a past-master?

In 1939 a young Fascist historian produced a thesis entitled: Pierre Gassendi: der Französische Spalthumanismus und das Problem von Wissen und Glauben. Gerhard Hess was apparently following the methods of total cultural history, made fashionable under the influence of Dr. Goebbels. However, both his choice of Gassendi—a symbol of Latin humanism and Romance civilisation—and his sceptical outlook, hint at fidelity to an earlier German tradition. Hess tells us that he conceived the study under the influence of the hermeneutic methodology of Wilhem Dilthey, which was exactly my own starting
This book is brimful of original insights, not only about Gassendi but about science and belief in general. Its artistic unity, wide range of source materials, and fidelity to Dilthey's original conception of mirroring the psychology of an age through the individual, has also attracted praise from Dr. Bloch (*La Philosophie de Gassendi* 1971). The footnotes are not always accurate and the author seems to have disappeared shortly after its publication. For obvious reasons, Hess did not mention the work on Gassendi by the communist exile Frank Borkenau, which was banned in the Reich but had been published in Paris in 1934. But Hess's footnotes indicate that he had visited Paris in search of material, and it is possible he may have seen it. Hess and Borkenau are the only commentators to attach a special importance to Gassendi's relationship with his patron, Louis de Valois. De Valois, whose correspondence with Gassendi takes up one third of volume VI in the *Opera Omnia*, is a central figure in my thesis.

Meanwhile, in German-occupied Paris, R. Pintard was publishing his three-volume work on *Libertinage Érudit*, 1943. Its subject was an extraordinary underground of academic scepticism in the heart of Counter-Reformation France and Italy, which had infiltrated the courts of popes and kings. Historians have chosen to ignore his findings, or to condense them into a sentence. It must be said, in their defence, that although Pintard's reliance on printed or manuscript sources was wide-ranging and scrupulous, it is almost unreadable to a non-specialist in the sort of material he discusses. My first reaction to this book was that a lack of historical and scientific perspective had led the author to exaggerate the importance of his material. Seventeen years later, it seems to me that the reverse was the case. Pintard's purely literary training led him to under-estimate both the intellectual coherence of scepticism and the
effectiveness of its underground organisation. His general picture of a sceptical movement, 'silently undermining the columns of Christendom', can now be supported by a wealth of new evidence.

Pintard wrote at length about Gassendi, being the first to study the surviving manuscripts for his publications and to note the discrepancies between what was written and what was thought fit to print. Gerhard Hess had already hinted at the unorthodoxy of Gassendi and of Fr. Mersenne. To do more than hint would have been dangerous. It was the official doctrine of the Reich that all seventeenth-century scientists were devout believers—Aryan crusaders against Jewish materialism. The logic of this syllogism was that only those of alien blood would even suggest the existence of doubts in the minds of scientists like Mersenne or Gassendi. Pintard boldly developed the thesis of two Gassendis: the secret sceptic and the conforming priest, with two very distinct philosophies. My own thesis places this speculation beyond doubt. There were not only two philosophies, but two sciences and two religions: one for the inner circle, the other for the public.

V. Tullio, who wrote a series of articles collected as Studio Su Gassendi (1961) and (in German) the preface to the Stuttgart edition of the Opera Omnia, inaugurated a new cycle of Gassendi studies. For twenty years Pintard was treated as untouchable by French historians of science. Lucien Febvre's plea to integrate Pintard's Gassendi with, for example, Fr. Lenoble's view of Gassendi in his scientific biography of Mersenne, fell on deaf ears. Tullio broke with the stuffiness of the French Gassendi establishment—personified by Professor Rochot. He showed that Gassendi's letters and polemical treatises revealed a quite different philosophy from the formal tomes which most historians had studied till then: the Animadversiones and the Syntagma. His findings appeared to confirm Pintard's theory.
of the two philosophies. Too cautious to accept any hypothesis of infidelity, Tullio argued that the empirical, probabilistic and sceptical habit stopped short at the hem of theology. Tullio's book inspired my working title: The Limits of Scepticism. Where I would dissent from Tullio is in his dismissal of the formal treatises. Properly understood, these contain a private sense which is often the reverse of their public meaning. That is why they are so hard to translate—and effectively are untranslatable.

Olivier Bloch's La Philosophie de Gassendi 1971 exercised a major influence on the direction of this study. My original plan, from 1967, had been to write a study of the historical and intellectual context of Gassendi's relationship with his intimate friend Peiresc, whose life he had published in 1640. Professor Southern's admirable St Anselm and his Biographer was to be my model. Bloch emphasised the importance of purely historical influences on the development of Gassendi's philosophy. Although he had little to say about them, he evidently regarded lay-patrons like Peiresc and De Valois as figures of key importance in relating science to society. His analysis of Gassendi's science and philosophy suggested the need to expand on my original scheme. This was when I began to glimpse the possibility that Gassendi was not the mediocrity pictured by the historians of science, but an original figure in his own right.

On the question of scepticism, Bloch adopted a position midway between Pintard and his critics. He underlined the existence of a secular/scientific ideology juxtaposed with a Catholic/scholastic metaphysics which stopped short of any synthesis. But he made no conclusions about Gassendi's sincerity or speculations about his real beliefs. He was particularly concerned to establish Gassendi's debt to nominalism; and his useful suggestions about methodology and philosophy impinged only indirectly on Gassendi's science.
His determination to isolate Gassendi's work into progressive and reactionary components led him to abandon the search for any unifying agent in the philosophy or in the individual. Scientifically, it led him to underrate the importance of Aristotle in shaping Gassendi's materialism. Any teleological assumptions in his science were alien elements, introduced for religious reasons, and incompatible with atomism.

Although Bloch saw the influence of French society and history as crucial to understanding the apparent discontinuities in his work, he emphasised the role of Gassendi’s upper-class patrons in initiating intellectual change. Systematic research into the Provencal background has altered the balance of this view. Gassendi's own experience as the son of a peasant in a small sheep-farming community, and as a university professor in the predominantly Jewish intellectual community of Aix, deeply influenced his attitude to science and to Christianity. Whilst avoiding the trap of relating reactionary philosophical attitudes to reactionary institutions, the suggestion of a link between Gassendi's attitude to Catholicism and problems of public order has been amplified and developed.

By frankly admitting that many of the propositions published by Gassendi were dictated by no more than the need to conform to censorship or to protect society from his own ideas, I have re-established the unity of Gassendi's philosophy on a historical footing. Although it may be argued that he was a sincere Catholic, he had lost all faith in the Christian religion. This unbelief was closely connected with his science—which the prohibition on Copernicanism and the enforcement of literal belief in Genesis prevented him from developing in public. Far from being reactionary, or eclectic, Gassendi's science, and the philosophy behind it, was coherent, original and much closer to that of Newton's *Principia,*
than any previous commentator has suggested. A. Albert's Gassendi e
l'Atomismo Epicureo 1981 was brought to my attention only recently.
But the author's conclusions agree on many points with mine, particularly
on the differences between Gassendi's atomism and that of Epicurus, on
the influence of Gassendi on Hume, and on the Aristotelianism in
Gassendi's atomism.

All these writers were concerned to high-light some aspect of
Gassendi's thought. Not even Hess presented a unitary picture. All
left the reader with the apparent contradiction of a scientist/
philosopher of the seventeenth century whose work appears muddled or
incomprehensible to the handful of modern readers who tackle it. It
may be convenient to list those paradoxes which have militated against
any unitary interpretation of Gassendi:
1) The founder of modern atomic materialism, who was a conscientious
priest and a loyal Catholic.
2) The obscure peasant, who became the darling of the court
aristocracy.
3) The enemy of anthropomorphism and scholasticism, who became
the darling of the Jesuits after his death.
4) The intimate friend of libertines and sceptics, who stoutly
refused to see any conflict between science and religion.
5) The enthusiastic and committed disciple of Galileo and Kepler,
who surrendered to Tychonianism without a murmur.

It is claimed that the interpretation offered in this thesis shows
that the contradiction in all these cases is only apparent. Gassendi
surfaces as a complex but coherent historical personality, responding
rationally within the degrees of freedom available.

In addition to these important secondary sources there are
others of less value, or of very uneven quality, which are nonetheless
of some use. They include Sorbière's preface to Opera Omnia 1658.
It was written, with political and religious considerations very much
in mind, in the aftermath of Gassendi's death in disgrace. Its
author was an unscrupulous placeman, shortly to receive plum posts in
the government establishment. It does, however, contain an almost complete list of Gassendi's known friends and patrons, which is very valuable for reconstructing a lost network of relationships. No full-length biography appeared until 1737, with Bougerel's *Vie de Gassendi*. It may seem strange that Gassendi, who pioneered the principle of writing scholarly biographies of men of science, should have had to wait so long. The reason, my research makes clear, lies in the peculiar circumstances of Gassendi's death—deeply embroiled in the anti-government side in the *Fronde* and with a prosecution for infidelity hanging over his head. At least two of his disciples charged with writing his life refused. Voltaire regarded Bougerel's project as a waste of time; and it certainly covers up both the political and the religious heterodoxy of its subject. Nor is it particularly accurate. It is the best biography, in the sense that it has a monopoly.

L. Feuerbach in his *Geschichte der Neuen Philosophie* was not writing an objective history so much as a genealogy of materialism. However, the appraisal of Gassendi, which he made in the 1840s, is very close to the portrait drawn in this thesis. Feuerbach compared Gassendi's scepticism to the chill wind of the Mistral in his native Provence; and religion to a tropical hot-house plant which survived 'only because he was careful to keep the door to the conservatory closed'. This is a very exact metaphor. A similar view was expressed at the same time by Feuerbach's most famous disciple, Marx.

Modern historians sometimes write as if books written before 1950 cannot possibly be worth reading (as a recent thesis on Gassendi argued) because they are full of whiggish anachronisms. But although all periods are prejudiced, few are prejudiced in exactly the same way. It may be helpful, as Gassendi argued when rejecting the scholasticism of his day for Epicurus, to balance the mind between
dogmatisms of a very different stamp. Certainly my experience is that older books often contain important insights on Gassendi which are lacking in the more 'up-to-date' writings.

P. Pendzig's two volumes on Pierre Gassendi (1908) are written to a high standard of scholarship, though with little sense of historical context. Volume II on Die Ethik und Ihre Quellen is a subject rarely treated in English or French. It is forgotten that Gassendi regarded ethics and natural philosophy as two branches of the same subject. There are interesting sections in Lasswitz, Geschichte der Atomistik (1889) and Lange Geschichte der Materialismus (1873). One phrase from the latter struck me particularly: 'The creation of the modern world, attributed to Descartes, owes quite as much to the labours of Gassendi.' It is not difficult to see why Gassendi's influence should have been greater in Germany than France. The triumph of Louis XIV, after 1660, marked the defeat of the Fronde and the spirit of provincialism and aristocratic patronage of science, with which Gassendi was identified. Paris triumphed over Provence, a centralised university system over Latin humanism. In Germany, right up to 1914, a provincial university culture persisted which was aristocratic, baroque and Latin, rather than Teutonic in spirit. Descartes was the hero of a France identified with mathematical physics. Germany acquired a more chemical and materialistic ethos, which found a precursor in Gassendi.

By contrast the English universities have paid him no attention. The only full-length study, G. M. Brett's Philosophy of Gassendi, (1908), was written by an Indian civil servant. Like Pendzig's book, published the same year, it is essentially an ahistorical critique of the Syntagma. But it is by no means without value. In contrast to later critics, Brett clearly realized—from internal evidence alone—that Gassendi was employing one standard when he wrote about science
Dogmatisms of a very different stamp. Certainly my experience is that older books often contain important insights on Gassendi which are lacking in the more 'up-to-date' writings.

P. Pendzig's two volumes on Pierre Gassendi (1908) are written to a high standard of scholarship, though with little sense of historical context. Volume II on Die Ethik und Ihre Quellen is a subject rarely treated in English or French. It is forgotten that Gassendi regarded ethics and natural philosophy as two branches of the same subject. There are interesting sections in Lasswitz, Geschichte der Atomistik (1889) and Lange Geschichte der Materialismus (1873). One phrase from the latter struck me particularly: 'The creation of the modern world, attributed to Descartes, owes quite as much to the labours of Gassendi.' It is not difficult to see why Gassendi's influence should have been greater in Germany than France. The triumph of Louis XIV, after 1660, marked the defeat of the Fronde and the spirit of provincialism and aristocratic patronage of science, with which Gassendi was identified. Paris triumphed over Provence, a centralised university system over Latin humanism. In Germany, right up to 1914, a provincial university culture persisted which was aristocratic, baroque and Latin, rather than Teutonic in spirit. Descartes was the hero of a France identified with mathematical physics. Germany acquired a more chemical and materialistic ethos, which found a precursor in Gassendi.

By contrast the English universities have paid him no attention. The only full-length study, G. M. Brett's Philosophy of Gassendi, (1908), was written by an Indian civil servant. Like Pendzig's book, published the same year, it is essentially an ahistorical critique of the Syntagma. But it is by no means without value. In contrast to later critics, Brett clearly realized—from internal evidence alone—that Gassendi was employing one standard when he wrote about science
and another for his pronouncements on religion. Rediscovered and documented by Bloch, some seventy years later, Brett’s views passed without notice in an age when conflict between science and religion in the age of Galileo was taken for granted. There was a further reason why Brett was well placed to appreciate Gassendi’s originality. His contact with Indian philosophy awakened him to those elusive features of Gassendi’s thinking with an oriental rather than a western flavour, which are particularly important for understanding his theory of matter.

Another amateur, Pierre Humbert, made the only study so far undertaken of Gassendi’s astronomical notebooks (vol. IV of the Opera) and scattered MS material. The difficulty of this task should not be underrated. Although Dr Roche has recently underlined the utility of Gassendi’s notebooks to historians of observational method, this is an area which has been generally neglected. This reflects the preference of modern historians for the theoretical over the factual. There are certainly many technical problems to be overcome before we can pronounce on what Gassendi’s aims were.

Frank Borkenau’s *Der Übergang Vom Feudalen zum Bürgerlichen Weltbild* 1934 has already been mentioned in connection with Hess’s work. Its author’s claims were frankly ideological, and it contains a long section on Gassendi. Though Marxist in intention it is very far from being a Stalinist tract. Borkenau had a distinguished record as an opponent of Hitler and wrote a Penguin paper-back—celebrated in its day—denouncing the Reich. It is, however, a universal truth that intense political involvement is incompatible with the objectivity which the best historical writing demands. Borkenau was no exception. Even so, he was mentioned with respect by Lucien Febvre, who called for a synthesis incorporating Pintard
on free-thought, Lenoble on Mersenne, and Borkenau's social dimension, into a new perspective on the origins of modern science. Febvre argued that Gassendi, who featured in conflicting roles in the work of all three, would be a particularly suitable subject for such a study. Febvre's aim was to analyse what he termed the 'human paste' of the early modern scientist. He deprecated doctrinaire statements, whether about mechanism, the bourgeoisie, or religious belief, when viewed as impersonal abstractions from the individual. His suggestions have had an important influence on this thesis.

Borkenau's work gained golden opinions from an unexpected source. Alexander Koyré, whom no-one could accuse of being a pro-Marxist (his family having lost a fortune in the Russian Revolution), argued: 'The psychological theory is found at its best in Borkenau.' There are indeed many points of agreement between the Marxist defender of the Spanish Republic and the ex-White Russian terrorist in their analysis of Gassendi. Like Koyré, Borkenau experienced an undisguised loathing for Gassendi, rarely shown towards obscure academics who have been dead three centuries. Gassendi received the sort of tongue-lashing reserved for Trotskyites and anarchists. Despite his peasant origins—which only made matters worse—Gassendi was branded as a class traitor, the lackey of the aristocrats, a superstitious bigot etc. Worst of all, he was a 'pseudo-revolutionary'. The true heroes for Borkenau were the parlement of Provence and their allies in the rising bourgeoisie. They were the vehicle of authentic revolutionary mechanism, with their standard bearer, Descartes. Borkenau's obeisance before the altar of Cartesianism is every bit as fulsome and abject as that of Koyré. It is not difficult to understand why Koyré, despite his rejection of sociological explanation in principle, found much to admire in Borkenau's book.

Doctrinaire fantasies need scarcely detain the impartial
historian. Yet neither Koyré nor Borkenau is entirely without value for our understanding of Gassendi—experience having shown that it is often possible to learn more from a bad book than a good one. Borkenau taught me the importance of Provence and the conflict between the aristocratic party and the parlement of Provence in the evolution of Gassendi's thinking. But whereas Borkenau dealt in polemical speculations, I went into the local records to find out what actually happened.

One writer who was above all insistent on the need to exclude the historical context from the study of Gassendi was Professor Rochot. Of De Valois' long correspondence with Gassendi, he wrote: 'It has no interest for the history of science or for Gassendi's writings.' Yet this is one of the most important primary sources for anyone seeking to understand Gassendi in the context of his times. Such narrowness is evident on every page of his Travaux de Gassendi sur Épicure et sur Atomisme (1944) and in numerous articles. It led him to dismiss the work of Hess and Pintard out of hand. Although excellent work may be produced within a sharply delimited area of reference, Professor Rochot's judgement failed to match his erudition. Although he dominated Gassendi studies for almost twenty years, his influence was wholly negative. His positive contribution lay in the editing and translation of texts. He became obsessed with demonstrating a proposition which, in the nature of things, was unverifiable and which my research has shown to be false: that every word published by Gassendi about religion must be taken in the literal sense attributed to him by Professor Rochot. He orchestrated a personal crusade against Pintard's moderate and sensible 'two Gassendis' theory, and succeeded in ranging most of the authorities on his side. Two collections of lectures, Pierre Gassendi 1655-1955 and Textes du Tricentenaire 1956 reveal how misinterpretation and pedantry threatened
to turn the subject into a cul de sac.

Gassendi's Christianity, though not his Catholicism, has found an unexpected champion in the form of Richard Popkin, in his History of Scepticism from Erasmus to Descartes 1960. This is attractively written and reached a much wider English-speaking audience than any book mentioned so far. It is therefore a pity that it has serious faults; not just in what it has to say on Gassendi but on the whole subject of French free-thought. He has no understanding of the complexity of scepticism: failing to distinguish between scepticism as a weapon against religion, fideism and the role of doubt in experimental science. His concept of 'mitigated scepticism', which has achieved a wide acceptance among historians of science, is particularly apt to become a meaningless umbrella term. Although he attributes the invention of mitigated scepticism to Gassendi, it is an expression nowhere to be found in Gassendi's writings. Gassendi believed that we are by nature incapable of total scepticism—an idea repeated by Hume. This is very different from Popkin's notion that we might mitigate our total scepticism in order to accept the Christian faith. He is working on an idiosyncratic definition of fideism which reflects his ignorance of Catholic theology. He makes no pretence of re-creating the social or historical dimension of the concepts, which he adroitly manipulates with a magisterial disregard for context and subject matter.

J.S. Spink's French Free-Thought from Gassendi to Voltaire (1960), though rather less well-known than Popkin, combines familiarity with primary source material and a good understanding of the conceptual problems. Within the limits of the general textbook, it is a useful and imaginative survey of a largely uncharted area.

R. Tack Die Erkenntnis Theorie bei Pierre Gassendi (1974) reflects continuing interest in Gassendi inside Germany. It is a realistic
and workmanlike book, high-lighting areas of interest, rather than attempting facile synthesis. It dismisses the fideistic assumptions of Rochot and Popkin. Gassendi's attitude to animals, the galley experiment, and the remarkable similarity of Newton's philosophy of science to Gassendi's, are all themes which Tack develops. These are problems on which I have reflected at length, and my discovery of this book was an important influence on my decision to write up my research. Dictionnaire de Biographie Française article Gassendi (1983) is the best short survey on Gassendi. Its claim that he had a dual philosophy and was 'the most original thinker of the seventeenth century' is amply documented by this thesis.

H. Jones Pierre Gassendi’s Institutio Logica 1981
H. Jones Pierre Gassendi 1981

The first of these consists of a translation of one of the simplest and straightforward pieces of writing in the Opera Omnia, followed by an undistinguished and pointless commentary. The author claims to have drawn on recent Soviet scholarship for some of his insights. However, at least the logica is marginally more useful than the book. This is little more than a competent paraphrase of some of Gassendi’s more accessible writings; having neither the merits of a translation nor an original analysis. If these books really do incorporate the latest Soviet research, this confirms the impression left by the entry on Gassendi in the Soviet Encyclopaedia: for all the effort they have put into Gassendi studies the Russians appear to have little to show for it—little, that is, which they are prepared to communicate to the west.

Fr. Brundell Pierre Gassendi University of New South Wales PhD 1983:

Fr. Brundell's thesis, which he claims to be the first original study of the Tours manuscripts—ignoring the work of Pintard and playing down that of Bloch—contains a great deal of interesting material. It is marred by at least fifty errors of fact in the first hundred
pages. His principal thesis, that Gassendi was a militant anti-Aristotelian who hoped to turn Epicurus into the textbook of a new scholasticism, is based on a misreading of Gassendi's text. This misreading is all the more puzzling, because it is one of the few points on which even I can detect no ambiguity in Gassendi. He always claimed to have the highest respect for Aristotle. His conviction was that scholarly research would uncover a very different Aristotle from that of the Jesuits and scholastics. Although Fr. Brundell is totally committed to the Catholic orthodoxy of Gassendi, no evidence is offered to counter the views of Gassendi's own contemporaries or those modern scholars who have argued the contrary. Like the work of Dr. Jones, this is a study without historical perspective; if Gassendi had been living in the fifteenth or even the twelfth century, only the dates would have to be changed.

The work of Dr. Jones and Fr. Brundell—both of whom are convinced of Gassendi's total nullity as a scientist and philosopher—illustrates the impossibility of making sense of Gassendi's writing without having first re-created the historical context in which he wrote. This has been the purpose of my research from the outset; to determine the historical nature of the phenomena and thence to deduce the significance of the science and philosophy. The methodology of the French annales school, aimed at reconstructing the life of a single province—or cultural system—from a comprehensive survey rather than impressionistic generalities, guided my first years of research. I was particularly impressed by those like Lefebvre and Ladurie who were interested in illuminating the history of mentalities and abstract thought. Like F. Braudel, I have preferred to use primary sources—whether historical archives or scientific texts—as the main quarry for my working assumptions. Secondary commentaries and the Journals have been mainly useful as a check on conclusions reached from other sources. There-
was no prior intention to confirm or refute the theory of a
particular historian of science, or to unearth material embarrassing
to any school of thought or ideology. It may be useful, in this
context, to point out some of the problems of working from archival
material across a wide range of disciplines:

1) Illegibility, abbreviation, deterioration. French handwriting at the turn of the sixteenth and seventeenth
centuries was very bad.

2) Languages: knowing French and Latin well enough to decipher handwriting can be very different from knowing French and Latin. Some documents connected with Mazarin and Peiresc were in Italian. There would be a mix of French, Latin, Provencal, Italian in the same letter. There was the use of codes for names.

3) Relevance poses particular problems in a multi-disciplinary inquiry. At first, almost anything can be relevant; if only as an indication of how different individuals or social groups pictured the world.

4) Interpretation eventually corrects this problem, by striking out certain lines of inquiry. The temptation is to oversimplify too soon in order to push everything else into the 'irrelevant' category. If we rely on a single secondary authority and limit the search to confirmation or counter-examples of one theory, we may speed our task but at the risk of neglecting difficult or unfamiliar terrain.

5) Understanding: textbooks tend to present very clear-cut images of 'world-views', 'transitions', and 'relevant factors'. Archives or published sources on the other hand are messy or ill-defined. It is also too easy to truncate the ambiguities and 'drill' the data to fit the texts. This is especially tempting because of the demands of completion dates, the need to justify a grant or establish professional 'credibility' through publication. Then there are our own pet theories to be satisfied. True understanding comes from contact with the raw material itself. It is the realisation of the perplexities posed by one particular page, which is itself one leaf from a forest.
6) Technical competence: the study of science in its historical context demands a very high level of interest in purely technical problems. The historian who is working at the level of primary source material is very quickly brought face to face with inability to decipher the significance of problems which were commonplace to the correspondent he is studying. It is all too easy to fudge a way out by discoursing at length on the nature of proof or the criterion for simplicity—ignoring the rest as mere detail. But we must not be afraid of confessing our own ignorance. A grain of honesty is worth a ton of bluff on these occasions. It is not just the technical details of astronomy or the nomenclature of alchemy which can appear opaque. The direction of work on natural history, geology, anthropology—the sensitive question of their relationship to theology—cannot always be settled by reference to the all too vague assumptions in the secondary sources. There is no substitute for acquiring a personal understanding of the technical context.

The possibility of making original discoveries from manuscripts, bolstered by the illusion that we can say something 'new' only on the basis of hitherto virgin material, can easily be exaggerated. It has happened to me, more than once, to 'discover' new material only to find that it had been published in the last century by some obscure learned society, or slumbered in the pages of a 'dead' periodical. What is more to the point is that documents containing awkward facts were very readily 'mislaid', or even tampered with. In urging us to confine ourselves to documentary evidence, historians seem to assume that the politicians, scientists and philosophers of the past felt some obligation to provide posterity with accurate records listing their crimes and follies at length. My own research suggests that exactly the opposite was the case. Obsession with secrecy, even on apparently trivial questions, was likely to be the rule. The volume of an archive, like that vast mass of papers associated with Cardinal
Mazarin, is likely to be in inverse ratio to the revelations it contains.

A number of examples can be supplied from my own research. All that survives of Gassendi's private papers are the drafts for his extant published works and his letters. It is quite incredible that Gassendi did not have extensive private papers. His *Opera Omnia*, for example, contain almost no diagrams. This is one reason why historians of physics have so easily passed them over, unread. Yet Gassendi was a professional astronomer for over half a century. We know, from other sources, that he did work not mentioned in his *Opera* which would have involved the use of diagrams; computing the orbit of Mercury to be elliptical for example; yet no trace of this remains.

There is no mention of private papers in the *Inventaire après Décès* made by the lawyers after his death. Yet we hear of Montmor, in whose house he died, giving papers to certain of Gassendi's friends, who were supposed to write a biography, which never emerged. These papers have disappeared, and there is no clue to their nature. Exactly the same applies to the private papers of Gassendi's patron, De Valois, who died in political disgrace. These would have contained material on science, as well as De Valois' own writings—referred to in correspondence with Gassendi and actually published, but never traced. Then there is the disappearance of some of the most interesting correspondences, like Gassendi/Galileo and Gassendi/Hobbes, though so many duller letters were published openly in volume VI of the *Opera*. Even in this selection there is evidence of tinkering with dates and postscripts where matters like the Galileo trial or materialism are in question.

Gassendi certainly—and De Valois probably—were members of a secret society: the *Compagnie du Saint Sacrement*. This is a discovery of my own, derived not from any new documents but from
close reading of collections printed before the first war, but whose pages were uncut. This sheds some light on the disappearance of their papers. It was a custom of the Compaagnie to seal compromising documents in a chest bearing the inscription: 'property of N'. They would be omitted from the inventaire and 'returned' to N on the death of their owner. N would be another member of the Society. From another set of printed documents I discovered that Montmor—who edited Gassendi's works and in whose house he died—was a director of this Society. The reader may scan all Gassendi's available papers, published and unpublished, without getting so much as a hint that either he or De Valois or Montmor were members of this enigmatic Society, which was dissolved by the Crown less than ten years after Gassendi's death.

Even the letters in the sixth volume of the Opera have been very little examined, though in print since 1658. I have made a number of interesting discoveries in their pages. But it is doubtful if they would have meant much to me, if I had not familiarised myself with the individual biographies of the correspondents, the social and political background, and the context of each letter.
ILLUSTRATIONS

Gassendi in profile circa 1650 (Wellcome Institute)

p.6A Roman Provence in the Seventeenth Century
12A Map of Provence
15A Birth-places of Natural Philosophers
16A Marseilles (1596) and as a classical harbour by Lorraine (1631)
41A Map of Principal Places in the Text
61A Provence—the Conflict of Interests
99A Three Magdalenes
137A Habart de Montmor (Bibliotheque Nationale)
147A The Tetrad
152A Marie Touched and Louis de Valois (Bibliotheque Nationale)
183A Parallellogram of Forces
209A Correspondents of Peiresc and Gassendi
214A Chateau of Grosbois, Du Puy Library (Bibliotheque Nationale)
232A Galleys by Rubens, Knight of Malta
237A 'Friendship 'goes dancing round the world'
260A The Logical Machine
279A Relief Map of Provence
287A De Anima (extract)
301A Galley Experiment (Bibliotheque de la Marine, Paris)
322A Building the Arsenal and Galleys (Musée Maritime, Marseilles)
356A Kepler on Mars, Kepler and Newton on versed sines
366A Versed Sine
368A Pascal on Integrating Sines
380A The President and His Farmers
396A Table of Lunar Positions
406A Mellan's Moon Maps
407A Cassendi and Galileo on the Moon
416A Saturn's Handles
418A Astronomical Instruments
426A Probability/Time/Space
429A The 'Pendulum' Planetary Theory and the Inverse-Square Law
430A Sun-spots
434A Voyage of Pytheas
436A Theories of Lunar Motion
506A Forces and Fibres: Kepler explained
524A Waves
526A Gassendi by Mellan 1640 (Wellcome Institute)
527A Gassendi, Galileo, Fabri: Paradoxes of Infinitesimal
536A Codes
538A Pascal on Probability
544A Social Morphology of Atomism (1)
550A Social Morphology of Atomism (2)
562A Syntagma as a Chateau (elevation)
565A Syntagma as a Chateau (plan)
567A Last of the Valois
574A Peasant from Basse-Alpes

Frontispiece and end-piece, model of the galley Reale (1/75)
ABBREVIATIONS

O.O. Gassendi’s Opera Omnia 6 vols. 1658
A.H.E.S. Archives for the History of Exact Sciences
B.N. Bibliotheque Nationale
U.L. University Library, Cambridge
published by the Centre Internationale de Recherche Scientifique
B.M. British Museum
There are three layers to this section: the social and economic, the political-administrative and the intellectual. The relevance of this material to the development of Gassendi's science and philosophy is partly to be found in the re-creation of a lost intellectual horizon, an attempt to re-create a culture in its totality which is of value for its own sake. For this reason I have tried to avoid over-loading this section with an elaborate synthetico-critical apparatus showing how all three layers inter-related. But in the context of the work as a whole it is intended to be far more than 'scene-setting' or 'background', but a sub-structure to support the thesis that science depicts the social relations of human society, as well as holding a mirror up to nature.
'The decisive theatre of any great public action is to be found in a small group of persons working in co-operation and conflict. These groups vary greatly in style and pattern: a cabinet; a general staff; a board of directors; the bosses of a political machine; the dons in a college; the chief scientists controlling a research programme. To Tolstoy's question, "What are the forces that move history?" one is tempted to reply "The structured group is everywhere supreme."

W.D.M. Mackenzie Politics and Social Science 1967

PROVENCE - MENTALITIES

GLOSSARY

community - unit of administration ranging from village to city
- has power to elect its own officials and raise its own taxes
- may or may not have one or several seigneurs
- consuls are its elected officials

councillor - conseiller, a top legal official
- holds office in the parlement or chambre des comptes
- has bought or inherited his office
- usually of middle-class origin but entitled to call himself noblesse de robe if his family had held office three generations

cours souveraines - a collective term at Aix for the parlement and the chambre des comptes
- they were sovereign courts for Aix but appeal to Paris was possible

intendant - a new instrument of absolutism under Richelieu
- there was always one, sometimes two, in Provence from 1630-49
- had arbitrary powers to force parlement to register edicts
- hated by parlement

court of requests - a new court introduced in 1641
- backed by Richelieu, De Valois and intendants
- it took jurisdiction over communities away from parlement
- its membership was drawn from the same legal families that sat in the parlement

Fronde - period of breakdown in central government in France 1648-53
continued...
governor - Provincial governors were traditionally members of the aristocracy
- Many of them became ornamental under Richelieu
- De Valois was governor of Provence from 1637-51
- He had Richelieu's trust and was given sweeping powers
- These were resented by the parlement
- He did not have Mazarin's full confidence and the parlement were able to get rid of him after a civil war (1649-50)
- The new governor co-operated with parlement but the Fronde in Provence continued till 1660

parlement - law courts + administration
- see councillor
- the centre of a patronage network based on about two hundred families
determined to protect its privileges

société d'ordres - the medieval view that society was a hierarchy of 'orders'
- functional: nobles fought, clergy prayed, the rest worked
- hierarchical: clergy superior to nobles, superior to the rest

In sixteenth-century France this was modified by the claims to nobility by the parlement and other royal officials known as:
- noblesse de robe (who continued to be lawyers and officials)
- noblesse d'épée (noblesse de courte robe) were the names given to the traditional nobility who wore swords and short cloaks

semestre - in 1647 the court of requests was turned into a semestre
- it was enlarged in number so that it could replace the parlement
- some of its members were noblesse de courte robe
- it was bitterly resented by the old parlement
- it ruled for a year but Mazarin abandoned it during the Fronde
- it was planned to alternate legal terms (semestre) with the old parlement; but this never happened.

social class - menu peuple This corresponds to Aristotle's category of the propertyless (aporoi). It means those members of the community who did not own enough property to provide a subsistence for their families throughout the year. They might be peasants, artisans, or a mixture of both; and lived by working or begging.
- plus apparens These were the classes who exercised political power on the franchises within town and village, which were determined by property. They were landowners or merchants. In a small village they would be largely wealthy peasants, whereas in Aix they would include the members of the cours souveraines.
(1) Communications:

Provence did not come under the rule of the French Crown until 1487, and it could be argued that not until the Revolution did it become fully integrated with France. Hemmed in the west by the confluence of the Rhône and Durance, in the north by Mt. Ventoux, in the east by the foot-hills of the Alps, the Mediterranean littoral was culturally and commercially predominant. Although an old Roman settlement its road communications were inferior, even by the standards of the age. Transport was exclusively by horse or mule, even on the plains, or more luxuriously by a horse litter such as the governor lent Cassendi in 1648. The rivers were the arteries of communication, and they were heavily charged with tolls. The Rhône, the largest, was suited to down-stream but not up-stream navigation, whilst the Durance had an uncertain temper, devouring the adjacent top-soil at a rate alarming to local farmers and resisting the inventiveness of contemporary boat-builders, who were encouraged by the governor. Paris was five to ten days distance on horseback, depending on the seasons; though, in the early seventeenth century, thanks to the initiative of the savant Peiresc and the exigencies of his vast international correspondence with the world of learning, a weekly postal service, l'ordinaire, was established via Lyons. The state of inland communications meant that the Mediterranean offered the most accessible commercial market for the export and re-export of bulk cargoes. Rome was only five days sail, Catalonia three, whilst Egypt might take six to three weeks depending on the season. By contrast the inland towns and villages tended towards self-sufficiency, reinforced by the high tolls necessary to balance their creaking municipal budgets.

These geographical and commercial ties southwards were reinforced by culture and history. King René, the last independent ruler, had
been titular King of Jerusalem and ruler of Naples and Sicily. The popes had ruled Christendom from Avignon, which remained a sovereign papal state under a vice-legate. Peiresc was at school there with the Jesuits in the 1590s, during the religious wars, and Gassendi a theology student at the university. This remained an enclave of medieval attitudes; student democracy and Baccanalian licence; whereas the Sorbonne and other French colleges had reformed in the fifteenth century. On St. Sebastian's day, for instance, students were allowed to beat all whores and Jews. With its ghetto, yellow-hatted Jews, Inquisitor and licensed brothel, Avignon reminded travellers of a little Rome. It was recalled that in the Middle Ages part of Provence had been within the Holy Roman Empire, and considered itself part of a German 'natio' so that Cardinal Richelieu's agents had to confiscate copies of an innocuous-sounding History of the Archbishopric of Arles, in which a dissident canon argued these claims were still valid.

The language of the people was overwhelmingly Provencal; in medieval times a distinguished literary language but by the seventeenth century studied as such only by antiquarian scholars like Peiresc. Italian clergy were still appointed to Provencal bishoprics, though increasingly unpopular, as evidenced by the complaints to the States General in 1614 and the murder of Turicella, Bishop of Marseilles, who had made Gassendi a deacon in 1616. Murders, riots and festivals were an integral part of Provencal self-expression at this time; a classic incident being the assassination of a government agent in 1639 at an inn, by four men in carnival dress, whilst his guards watched a religious procession from the roof. French administrators and officials who found themselves in Provence tended to slip naturally into a colonialist attitude. The letters of Guillaume Du Vair, who ran Provence for Henri IV and during the regency of Marie de Medici,
show a consistently low estimate of the Provencal character 'greedy, ambitious, ill-advised' was his estimate of the city fathers of Marseilles. He viewed the Provencal much as Burleigh did the English Catholics, as potential conspirators or collaborators with Spain. It is true that Marseilles invited Philip II to invade in 1596, in the hope of establishing the city's independence of France; but, when the Spaniards invaded again, in 1635, Du Vair's fears were not realized and they were loyally repelled.

Du Vair, a Stoic and a philosopher, showed more restraint than most in his criticisms of the Provencal. The intendant from 1630-1633 felt so strongly that '...... the Provencal are the most vindictive nation in the world, courteous and civilised by the proximity of Corsica, Barbary, Tunis and Algiers,' that he sent copies of his character analysis to the Chancellor and both the Finance Ministers. We find Mlle. de Scudéry, Provencal by race but brought up in the salons of Paris, complaining that not one woman in Marseilles, even of the nobility, had conversational French, whereas 'the vicinity of Algiers has barbarised Marseilles men.' The physician Ambroise Paré undertook to account for the Provencal character in terms of climatic conditions: 'A plain where the sun beats down and there are many strong winds leads to a turbulent spirit, mutinous, eager for novelty, impatient with the yoke of servitude ... what better example could there be of this than Provence?' The Provencals, for their part, regarded France as a foreign country, though acknowledging that the King of France, as 'Comte de Provence, Forcalquier et Terres Adjacentes' was their legitimate ruler. This was true of intellectuals as well as the common people. In his Vita Peireskii Cassendi's section on Peiresc's patriotism, deals entirely with his services to Provence and the study of its cultural and literary history. Although Peiresc had had an honourable career as a civil servant in Paris, this was passed over. The fact that
As in Cassendi's philosophy the past was not seen as a monument but as a foundation on which to build. Roman Provence as it looked in the seventeenth century.

1) Arles: amphitheatre converted into fortified flatlets

ii) Nîmes: Pont du Gard aqueduct. In Rome Pope Urban VIII (1622 - 17) was the first sovereign to restore a public water supply on an imperial scale.

iii) Nîmes: Maison Carrée. Peiresc deciphered the inscription
and administrative families at Aix that the muse struck: men like La Céppède, First President of the Chambres des Comptes and a large landowner near Marseilles, author of the biblical epic Théorèmes, whose originality has attracted many modern commentators. Distinguished minor poets were found in the Périer and de Chasteuil families, where the taste ran more to light, Epicurean verse. Du Vair himself, in his philosophical writings, became a model of the modern style in prose, until the age of Louis XIV brought in still more rigorous standards. Peiresc, as an intimate friend of Malherbe and secretary to Du Vair, and with connexions by marriage with all the legal families mentioned above, employed the modern style in his vernacular letters and was careful to obtain all the latest poetry and literature. Lucien Febvre has argued that medieval French was a 'powerful brake on the growth of thought', scientific thought and religious scepticism in particular, whereas evolution of modern French, language and syntax, was an indispensable pre-condition of the Enlightenment. In the 1630s Gassendi's patron, De Valois, grand-nephew of d'Angoulême and like him governor of Provence, brought with him in his suite Antoine Godeau, George and Hadeline Scudéry, all three active in the purification of French associated with the précieux movement. De Valois and his eccentric but eminent father, Duke of Angoulême, were active in Parisian literary circles and patronised Voiture, a libertin and punster, whose letters were regarded as models of style and taste.

One of the curiosities of Provencal culture in the late sixteenth century, viewed with scepticism by Gassendi, was the book of prophecies of Nostradamus; whose hybrid style, French compounded with the various romance languages, remained unparalleled in literature until Finnegans Wake. Taken seriously, in its day, by the French royal family, the prophecies depended for their success on their linguistic ambivalence. Nostradamus' son, César, became a respected and wealthy citizen, first
consul of Salon, and a trusted ally of Du Vair, writing verse indifferently in Provencal, Latin or French, in the style of the new literary movement. Leaving aside any relation to the future, the prophecies of Nostradamus reflect a fissure in Provencal consciousness which French occupation brought about. Gassendi, who was not a member of the Aix elite except by adoption, was a Provencal speaker who acquired French, as the language of his rulers, and Latin as the language of the Church. Perhaps this helps to explain the absence of Cartesian clarity in his style, which has been accurately characterized as follows: 'Sein Stil ist ausladend, die Satzsconstructionen sind vershachtelt und fur den Leser oft nur schwer durchsichtig.' In the case of Nostradamus, impenetrability was deliberately cultivated to maximise his ambiguity. In this context Le Febvre's argument that stylistic expression was an obstacle to the formation of unbelief in the sixteenth century is reversed in the case of Gassendi; whose articulate unbelief was masked by a self-conscious stylistic obscurity.

Geographically and politically Provence, with around half a million population, displayed surprising diversity within a small compass. Gassendi came from the Basse Alpes, known as Haute Provence, a mountainous area whose prosperity lay firmly in the medieval, or even Roman, past. In his history of its capital, Digne, Gassendi outlined the main causes of its decline. The proximity of the Huguenots, in Dauphiné, and the contributions levied by rival armies in the wars of religion (1562-94); 'of which, as a boy, I heard many old men tell tales. Less reversibly, the combination of irresponsible land clearance with a deteriorating climate and uncontrollable mountain streams diminished the ratio of land to people, so that emigration swelled the population of the more prosperous plains. In any case they were already used to wandering. The mode of life of the majority dictated by the rhythms of transhumance as, winter and summer, herds of cattle
and sheep moved down the valleys in the direction of the coast. Gassendi must have participated in these movements as a boy, and there seems an element of personal recollection in the natural history section of his Syntagma when he wrote of the shepherds, alerted to the wolf's presence by its distinctive panting and ululation, when down-wind of the sheep, swopping tales of werewolves round their camp-fire. We can only speculate on the line of reasoning which led someone from a region where ranching was the mainstay of a somewhat precarious existence, to a belief in vegetarianism and animal rights. But one clue is furnished in the same passage where he dismisses lycanthropy as an absurd fable; though it was still debated by lawyers and philosophers at this date, with the sarcastic remark 'as if man lacked the force to be a wolf to man without assuming the morals or the body of a wolf'. Man was a predator who preyed not only on other animals but, unlike the wolf, on his own kind as well.

His description of the capital of the region, Digne, where he had lived as student, teacher and priest, reflects a similar pessimism. 'The clock, in its iron cage, an elegant and ingenious machine can be seen from far afield and has a beautiful appearance.' Perhaps fittingly on account of Gassendi's sympathy with mechanism, it emerges as the town's only attractive feature. Over half the town had been demolished in the struggle between Catholic and Protestant, chiefly in the early 1590s; the area called the 'bourg' was devastated and although nearly half a century had passed much of the grounds within the walls were still waste and already there were fields where was once a city. But the inhabited parts of the town remained unpleasantly cramped:

'The streets in the inner city are narrow alley-ways, made still narrower and darker by the houses whose upper storeys are carried forward on beams, sometimes supported by columns. The irregular appearance of these facades is most unpleasing, combined with the unequal arrangement of the houses. These are extremely tall and narrow, with the interiors very dark and some rooms, placed in the centre, effectively blind.'
To complete the picture Digne was surrounded by steep mountains which cut off the sun anyway for much of the day. In view of the significance of the sun to Gassendi, as a visible emblem of divinity, it is difficult to avoid the conclusion that there was a symbolic element behind the simple description. (Compare it with Lucretius' analysis of religious intolerance and civil war III v. 85-92). Some of his observations on the town in letters to friends have the tone of a satirist, rather than a spiritual pastor; as when he commented on the sagacity of a local doctor, who gave his opinion that venereal disease spread through drinking water, thereby acquiring all the respectable girls and matrons of Digne as his patients. 34 On the other hand, his sympathy was evident when the plague of 1629-30 ravaged a population quarantined by armed guards on the orders of the parlement. 'Between ourselves the parlement was much to blame', he confided to a friend, because they had made no efforts to segregate sick from healthy citizens or arrange for a food supply or pasture for their flocks. Such accusations were omitted from his official history, an omission which gives the lie to the image of 'le doux prêtre' incapable of suppressing his real views for reasons of policy. 35

Basse Provence, including the great bulk of the population, and the most fertile land, possessed the principal cities: Aix, with its parlement, Arles, on the Rhône, formerly the Roman capital and now the province's granary; Marseilles, already a polyglot seaport. Although all these places suffered from the civil wars and the plague of 1629, these events, crippling disasters in Digne, scarcely slowed the pace of growth across the prosperous plains. According to R. Baehrel the period from 1560 to 1660 for Basse Provence was one of growing population, matched by economic expansion. 36 This contrasted not merely with Haute Provence, but with the tendency towards economic contraction during the first half of the seventeenth century, experienced throughout Europe.
The only other conspicuous exception to this generalization was Holland, or more correctly the United Provinces, whose shipping was to be found in Marseilles harbour and whose engineers drained the salt marshes round Arles.37

Provence was not an area of industrial production, or even organised rural workshops; it was primarily an agricultural; secondly a commercial zone, with each community developing a full range of appropriate trades and little in the way of guild organisation, concentration of production or advanced technical skill.38 Peiresc lamented the difficulties of obtaining any kind of precision scientific instrument from the hands of Provencal craftsmen, so that everything had to be ordered from Amsterdam. Gassendi's best telescopes were gifts from Galileo and Hevelius. Even the clocks, constructed largely by foreign craftsmen, were notoriously unreliable from lack of native labour to maintain them. 'It goes like the town hall clock' was applied to anything unpredictable or muddled. Peiresc went for self-sufficiency, training his own craftsmen, making his own tools, setting up workshops and using water-power to run paper mills, saw mill and a copper works. He also had his own bookbinders, botanic garden and observatory, making a kind of miniature Uraniborg.39 But although there had been a printer in Aix, and a bookshop, since the time of the religious war, Peiresc regarded Provence as a centre 'éloigné du commerce du livre'.40 Even the main centres of French book production, Lyons or Paris, were outclassed, as in instrument-making, by the United Provinces. Similarly map-making, in which both Peiresc and Gassendi had a special interest, from their measurement of longitudes, had to be done by retention of their own engraver, as in the special case of Claude Mellan and the maps of the moon, or by application to Amsterdam; Blaeu, well known to Gassendi, who supplied information for his Vita Tychonis, specialised in star maps as well as maps of the old and new worlds.41 The relative absence of logistical hardware, on which the
new science depended far more completely than scholasticism, helps to explain why the scientific movement in Provence was such an evanescent phenomenon. Though it makes its genesis there all the more puzzling. In addition to its economic regionalism Provence presented a political diversity usually associated with the Holy Roman Empire rather than with France in the age of Richelieu. The State of Orange, a Protestant enclave under the ruling Dutch stadholder, who from 1596-1610 and 1630-48 was the ally of Catholic France, bordered the Papal State round Avignon. The town of Forcalquier and the Terres Adjacentes, including Arles and Marseilles, were separate from Provence itself and had immunity from direct taxation. Provence was a Pays D'État, and had the legal right to be taxed only with the consent of its three estates; an occasional assembly not to be confused with the parlement at Aix, which was a supreme law-court in permanent session. It is an interesting comment on the limits of absolutism that all these anomalies, though sometimes challenged, were abolished only in 1791-2. Even the provincial estates were not formally abolished till then, but simply, after 1640, never summoned. Nonetheless it would be a mistake to underrate the inroads which absolutism, despite its respect for legal forms, was able to make on Provencal society during this period.
(1) Communications

1. R. Pillorget, Les Mouvements Insurrectionnels de Provence 1975, pp. 35-6, 0.0.1V, p. 453.
5. "Mémoires et un voyage" J. J. Bouchard, Bibliothèque Nationale n.a., fr. 4236, f. 71.
6. Aix Méjanès MS 1021, f. 350v, no international treaty ever removed it from the Empire.
7. Bellaud de la Bellaudière was the last Provencal poet to appear in print (in the 1590s), and he was sponsored by the separist dictatorship in Marseilles. Histoire de la Provence, ed. E. Privat, 1969, pp. 247-8.
10. Aix Méjanès MS 973, f. 369.
12. F. Braudel (op. cit 2), pp. 1210-1214, Marseilles was virtually a free state from 1588-96; from 1635-7 Spain occupied the Isles of Lerin off the coast. Histoire de la Provence, ed. E. Privat 1959, p. 275.
15. Ambroise Paré : Textes Choisis Paris 1953, ed. Delavall/Sendrail, p. 80. Paré was a pioneer in military surgery and artificial limbs (1520-90). Theories of character and climate were not uncommon at this time; see Mersenne : Naissance de Mécanisme 1942, pp. 499-504.
17. A. Brun, Recherches sur l'Introduction du Français en Provence 1923, R. Pillorget (op. cit. 1), p. 17-19. This was also the case in some other areas of France. But it was particularly acute in Provence.
18. A. Brun, (op. cit), pp. 110, 120.
19. Frontalhaude Vie de Malherbe 1951, pp. 52-64.
20. Bibliothèque Nationale MS fr 2373, f7 Angoulême compared himself modestly to Caesar and Alexander the Great (similarly androgyne).
21. Evans Donaldson, La Cérèse, P. Chiltmern, T. Cave, B. Rousett etc.
25. Cesar de Nostredame, Pièces Héroïques et Diverses Poésies 1603.
27. A number of scholars have earnestly protested that Gassendi was orthodox; e.g. B. Rochot, 'Le Cas Gassendi', Revue d'Histoire Littéraire de la France 1947, pp. 289-313 and R. Collier, 'Gassendi et le Spiritualisme' in Tricentenaire 1955, pp. 97-113. This thesis does not fit the evidence, as is argued in GASSENDI AND THE CHURCH and FRIENDSHIP. Nor do I accept the hypothesis of R. Popkin, Scepticism from Erasmus to Descartes 1960 that Gassendi was a 'liberal Christian'. 
27 0.0. V 669a, 70b.
29 0.0. V 668a; see also T. Sclaferti Cultures en Haute Provence 1959 pp. 228: Gassendi noted the scarcity and expense of timber.
30 V 669a see F. Braudel The Mediterranean in the Age of Philip II pp. 88-91 and Sclafert (op cit) pp. 133-5.
31 0.0. II p. 199a.
32 R. Mandrou Magistrats et Sorciers en France au XVIIe siècle 1968 pp. 186-7 discusses a werewolf trial by the parlement of Bordeaux in 1603. In Gassendi's circle to be 'cured of the loup-garou' (belief in were-wolves) became a catch-phrase for having lost belief in the supernatural in general, e.g. R. Pintard Libertinage Erudit 1943 p. 325.
33 0.0. V 665b.
34 Lettres Familieres à François Luillier ed. B. Rochot 1944 p. 95 7chose digne (pun) d'étonnement comme quoi ce pays-ci estant un pays de chasteté, il se trouve neanmoins infecte extrèment de la verole.' He thought an average of 1:5 in Provencal cities were afflicted.
35 Op cit p. 38 'a true history of the plague at Digne could not be written without impugning the honour of our parlement'; e.g. C. Rosso 'Le doux prêtre' Philosophia I (1950) pp. 593-605.
37 See Essays in General Crisis of the Seventeenth Century ed. G. Parker, L. Smith 1978
38 Arles' A. Temko Horizon July 1959 pp. 91, 132.
39 Bibliothèque Nationale MS fr. 12772 f. 44 "je ne regardais pas la dépense pour les faire apporter jusqu'ici" to Gassendi March 1633 and Lettres de Peiresc ed. Tamizay de Larroque (III) p. 599 he was still recalling 'the incredible range of stocks in those Amsterdam shops' he had visited thirty years earlier.
30 Quoted in J. Billioud Le Livre en Provence du XIV et XVIIe siècles 1962 pp. 179: Provence's first bookseller, a Huguenot, was murdered in the public square.
41 Eisenstein The Printing Press as an Agent of Change 1979 (II) p. 624
I cannot endorse her view that 'encounters at Peiresc's cabinet in Provence ... give rise to the impression that there was a transatlantic studii from Galileo's Italy to Mersenne's France ... but because of inadequate printing centres such encounters were in reality abortive' (p. 643). Her argument that the link between printing and Protestantism worked against the continuity of Catholic science is an important contributions, worth serious consideration.
42 Another example is anatomy: Peiresc and Gassendi were keenly interested in Harvey's work, but the University of Aix had neither up-to-date medical books nor interest in dissection. The Penitent Bleus, who had undertaken to bury the bodies of the condemned, regarded penitent criminals as entitled to the same consideration as honest citizens. Haitze Histoire de la Ville d'Aix (V) p. 291; J. Roger Les sciences de la vie dans la pensée française du XVIIe siècle also condemns faculties at Orange and Avignon 1972 pp. 5-12.
In 1560-1600:

1. Italy
2. Of late Renaissance
3. Provence As Part
4. Provence
5. Milan
6. Verona
7. Padua
8. Florence
9. Paris
10. Geneva
11. Prague
12. H. Parnass (mathematics and physics)
13. Dante (metaphysics)
14. Galileo (mathematics)
15. Harvey (philosophy)
16. Newton (mathematics)
17. Tartaglia (philosophy)
18. Pico della Mirandola (philosophy)
19. Ptolemy (mathematics)
20. Cassioli (metaphysics)
21. Desagol (physics)
22. Project (geography)

A Few things to note:
1. More free in France vs. Germany in France.
(ii) Religion

'The pride of the Provencal comes from Spain, for they think themselves superior to all nations, especially the French. Their religion, like their law, is in the Italian fashion.' In 1630 J.J. Bouchard, a young Parisian sceptic, observed the natives with something of an anthropologist's detachment. Many key features of religion in Provence were Italianate; the emphasis on Mary, as mother of God, and the low profile of her son; the willingness to look for miracles or interpret nature as a pattern of portents; the importance of the hooded confraternities of penitents, in their robes of black, white or blue, in the organisation of the laity. As in Spain, religion and local patriotism were closely linked. In 1631 Provencal pride was wounded by a military occupation, under the Prince of Condé, following an extensive but unsuccessful rebellion against the Crown. In the official speech of submission to him, given by one of the presidents of the recently scuffling parlement, the emphasis was on local distinction:

'Provence was the first to receive the Christian faith and was miraculously chosen above all parts of Europe to be the refuge and retreat for those closest to God.'

The reference, understood by all, to the flight of Mary Magdalene, Martha and other members of the Holy Family, to Provence, was a story enshrined in the breviaries and learned with the catechism. It was a reminder to Parisian conquerors that they were entering a sort of annexe to the Holy Land. Yet ten years later, a smart Parisian scholar sought to rob the province of that spiritual distinction too.

During the religious wars Provence, which became a supporter of the Spanish-backed Catholic League from 1585, found itself isolated from the Catholic strongholds round Paris - to the north was Protestant Dauphiné and Geneva; to the west, Protestant Languedoc. In the absence
Lorraine, who visited Marseilles in 1631, seems to have used the harbour as the setting for the ancient Greek seaport.

Like Poussin, Lorraine was patronised by Urban VIII's circle and we can discern a number of preoccupations which parallel Gassendi's here:

i) the mix of antique dress and architecture with a seventeenth-century port and shipping;

ii) the tendency to minimise the human drama, dwarfed by the sun, the sea-scape, the architecture;

iii) Lorraine's painting continually emphasises shipping, in association with the rising or setting sun.
of strong monarchy, at such a distance from the capital. Provence became effectively independent again. But it was an embattled independence with division of the parlement into a Leaguer and a Royalist politique faction and the dual threat of invasion by the Huguenots and the Catholic Duke of Savoy. Moreover towns like Arles and Marseilles took the opportunity to overthrow their ruling oligarchies and set themselves up as popular dictatorships, in which Catholic radicals ran up debts and taxed the rich to pay the interest. A manifesto issued by Marseilles reflects the genuinely strong religious passions behind the political agitation. They saw themselves as beset by 'heretics, politiques, anti-Christians and atheists', and these were identified with the Parisian bureaucrats who had curtailed Provencal liberties in the century since its annexation. It is easy to dismiss such phrases as hollow rhetoric. But if we consider the political developments in France and Provence from the perspective of a Catholic radical believing in Christendom, local autonomy and democracy, as three things associated by natural law, then it can be seen that forces alien to this tradition were indeed at work. The triumph of Henri IV, who entered Marseilles after the assassination of the Catholic dictator (so that the Spanish galleys, which were actually in harbour, had to make a hasty retreat) meant the victory of what has been styled 'la grande bourgeoisie d'offices'. It was, in France as a whole, the parlement and the royal office holders who consolidated their position through the hereditary right to office, formalised by the paulette of 1604. In Provence at Arles, Marseilles and other towns it was the triumph of the propertied élite, often with relatives in the parlement, who used the parlement's legal backing to restrict municipal office and the franchise to the wealthy. Henri IV himself, who had become a Catholic simply to split the League in two and then secure the throne, pursued a Protestant, anti-Spanish foreign policy in Europe, and relied on Protestant or politique advisers. Later, under his son, France
became committed to a war whose principal object was to secure the independent existence of the Protestant German states and the United Provinces, as a bulwark against Habsburg power. In consequence of this the tax bill was quintupled, the public debt and those of the municipalities soared, octupling the commitment to pay heavy interest, at a time of falling prices. Local privileges were further eroded under pressure from parlement, governors and intendants. By 1660, when Louis XIV ended protests to this policy by entering Marseilles through a breach in the wall, its republican tradition, like the unity of Christendom, had become a folk memory.

There is disagreement among historians as to how far the pursuit of politique policies, subordinating religious principle to public order, raison d'état, subordinating religion to diplomacy, or Gallicanism, subordinating the Church to the needs of the State, were related to the rise of scepticism. It would be difficult to deny that scepticism in France flourished best among bureaucrats and their families. J.J. Bouchard himself furnishes an immediate example. As he rode into Provence it was rioting against Richelieu's introduction of new tax officials, the élus; it amused him to reflect that his journey to Italy was being financed with some of the money which his father had gained from selling posts as élus in neighbouring Languedoc. Jean Bodin provides an earlier example of the ease with which a politique became an achrist. But it would be truer to say that many officials, loyal to Henri IV, Richelieu and Mazarin experienced an intake of scepticism which diluted their attitudes, without dissolving the Christian forms on which they were based. A good example of how far this process could go is Montaigne, who approaches super-saturation in terms of accommodating scepticism to the Catholic faith. An anonymous writer of around 1600, who evidently shared a similar perspective, commented on the religion of Provence:
'Bien que les hommes y aient peu de pieté, ils se conduisent fort par l'apparence de la religion, pour qu'estant extremement ambitieux, chacun se veult prevaleoir de ce pretexte pour s'autoriser, joient qu'ils sont de leur naturel fort amateur de ceremonies.'

As these could only be the conclusions of a Parisian they should not necessarily be regarded as objective. Nonetheless they are a salutary corrective to the view, which a number of historians adopt, that professions of faith, especially fanatical professions, should be regarded as genuine without strong evidence to the contrary. What this writer is asserting is that many attached themselves to religion 'pour s'authoriser' to deck out their own commonplace personas with the aura of the supernatural; as Shakespeare put it in Measure for Measure, a play about religious hypocrisy and government, 'Man, proud man, dressed in a little brief authority'. Religion was the means whereby a poor man enforced his authority on wife and children, or a president in the parlement imposed himself as the king's representative on clouds of litigants. The reference to ceremonial suggests particularly the great processions, on festival days, when the parlement and other public officials would earnestly debate for hours who should have the best seats in church or the place of honour near the Blessed Sacrament. Pascal wrote:

'Our magistrates appreciate this mystery well. Their red robes, their ermines in which they are like furry cats, the palace where they judge, the fleur de lyc drapery, all this august apparatus was necessary ... [as for doctors] ... otherwise they would never have duped the world which cannot resist such an authentic show. If they had true justice or the art of healing ... the majesty of these sciences would be sufficiently venerable, but having only vain sciences they need such vain pompes, which strike the imagination and thence draw respect.'

The parlement employed religious festivals to boost their public image and even on one occasion, the feast of Saint Sebastian at Aix in January 1649, used a procession to orchestrate a successful riot against a governor who had sought to restrict their authority.12

The brief chapter in Gassendi's ethics which deals with religion
covers also respect for parents, obedience to what Gassendi calls those with constituted dignity (nobles and officials), respect for the aged and friendship. He accepted the etymology that religion meant 'to bind' and, having resigned its supernatural aspects for 'those more learned in the Church Fathers to discuss', treated Catholicism as a purely social dimension, which made it indistinguishable from paganism. All outsiders, from Guillaume du Vair to J.J. Bouchard, were struck by the importance of religion in Provence as an element in public order with an ambivalent role; it could stir up spirits, but also smooth them down. For example, Provence's religious houses were badly in need of reform and renewal; and it was normally government agents, such as Du Vair, or later the intendants, who took the initiative. Such measures, which might offend powerful wealthy families, also aroused popular indignation and could result in dangerous riots. During the funeral of one of the Guise family, adulated in Provence for its leadership of the Catholic League, an excited crowd interrupted the funeral and tore open the coffin to get a last glimpse of the corpse. During one of the frequent riots in Provence, in which the mob broke into a church in pursuit of an enemy, the priest was able to restore order by holding up the Sacrament and threatening, quite untheologically, to invoke a curse. There is also plenty of evidence for the use of the Holy Sacrament to put out fires, produce rain after a long drought and even to divert an oncoming plague of locusts. The virgin, at Cotignac, and Mary Magdalene on the Sainte Baume, honoured by pilgrimages from Francis I, Charles IX and Louis XIII, were available for intercession. Gassendi described as superstition all religious practices based on petitionary prayer and the offering of sacrifice, declaring that we must honour God for what he is, not for what he gives. But he does not appear to have experienced any qualms of conscience in ministering to the Provencal community. Even when those close to him, such as the governor De Valois, or the ex-Carthusian Neuré, attacked the
pagan excesses which accompanied the great carnivals in Aix and Marseilles he deliberately remained aloof. Perhaps it was because, unlike the two northerners, he understood that love of ceremonial was so close to the Provencal conception of religion, that it would be impossible to diminish the former without imperilling the foundation of the latter.

Granted that in Provence much of the importance of religion was social or ceremonial, it should not be surprising that fanatical loyalty to Catholicism did not exclude a certain anti-clericalism. A foremost offender was the parlement itself, which had used the increasing State control of the Church under the Valois monarchy to strip the still existing system of Church Courts of its last shred of legal authority.

The parlement families, and those connected with them, had colonised the Church from within by obtaining positions in lucrative chapters and abbeys for themselves. The parlement tended to confront the higher clergy, notably the Archbishop of Aix, in those apparently pointless rows about seating and ceremonial, which at that time were one of the most potent ways for one power to affirm publicly its superiority to the other. Du Vair, as president of the parlement, and a man of sound judgement, made sure they won such petty squabbles whilst at the same time extending the parlement's authority in more practical areas, such as the exposure and trial of delinquent clergy. The trial of a Marseilles priest, Gaufridi, for diabolism and the initiation of his girl penitents in 1611, provided Du Vair with a golden opportunity to humiliate the clergy and at the same time vindicate the parlement's right to conduct a show trial.

For the same reason he opposed the introduction of the Jesuits into Provence; they would raise the prestige of the clergy whilst, through their direct relation with Rome, stand outside the parlement's jurisdiction. Those members of the parlement, like Peiresc, most sympathetic to these attitudes were related to the group which had embraced the royalist and politique cause during the wars of religion.
The clergy were under attack from the more prosperous peasantry, small merchants and solicitors, the class known under the ubiquitous label of the third estate. The list of grievances for the last Estates General before the revolution, in 1614, shows that tithes were just as much a cause of unrest then as they were to be in the eighteenth century. The greed and ignorance of many priests were vociferously denounced. A number of suggestions for improving the situation were made, of which the most radical were the diversion of existing Church revenues into educational and charitable work, and the provision of all religious services free of charge. The most conservative was the restriction of ordination to those with a private income of at least 100 livres a year. Since this last figure is amazingly modest, the equivalent of perhaps £10 a year in contemporary England, it is some indication of the lowly strata from which the great majority of Provencal clergy were then recruited. The nobility were less hostile but even they stressed the need for reform.28 The existence of this popular ground-swell is further attested by the lawsuits, occasionally breaking out into violence, which embroiled certain bishops and their flocks over feudal dues; more reminiscent of contemporary Catalonia than metropolitan France.29 As Provost of Digne, Gassendi experienced similar treatment in his efforts to enforce the paper rights of his cathedral. The existence of popular anti-clericalism gave the parlement a tremendous leverage on the Church; since, with their own courts neutered, it was to the State tribunal they must go for any disputes with their parishioners over tithes, feudal rights etc., or to report any violence. These complaints were scarcely provoked by the affluence of the Church in Provence. It has been calculated that the clergy owned at most 6% of the land; but this included the great domains of the chapter at Aix Cathedral and the Knights of Malta. The canons at Aix were recruited almost exclusively from families connected with parlement and the 'tongue' of knights drawn from the richest families in
Provence. We are left with the paradox that despite the exuberant piety of their flock, the Provencal clergy were the poorest in France, and so were their bishops. This consideration is important in considering Gassendi's opposition to the taxation of the clergy; fear of anti-clericalism may well have been an influence in restricting the circulation of his more sceptical notions.

The impact of the Counter-Reformation on Provence has yet to be made the subject of academic study; but it would appear to have been less marked than in areas more deeply scored by the inroads of Protestantism. Its reputation for Catholic fanaticism, joined to civil disorder, meant that most French governments shared Du Vair's fears that to encourage popular piety in Provence might indirectly favour Spanish invasion because of anti-Catholic foreign policy. The pilgrimage of Louis XIII to the holy places of the Magdalene, in 1622, marked a partial end to these fears and coincided with the arrival of the Jesuits in Aix. Thereafter the energy of the reform in Provence seems to have focused on projects for furthering the kind of educational and charitable projects which had been demanded at the States General in 1614. There is ample evidence that increasing hardship in the countryside and among the urban poor made this sort of work more necessary. High grain prices worked for the prosperity of the larger landlords, a category which included absentee proprietors in the towns as well as the richer peasantry, but depressed the condition of casual labourers, artisans and those whose plots of land were inadequate to support their large families. Gassendi's patron, the governor Louis de Valois, made strenuous efforts to fix grain prices and prevent the export of cereals in time of famine; measures which aroused bitter resentment among those with surplus grain. He patronised new religious orders, such as the pénitents bleus and the sisters of Saint Mary Magdalene, whose aims were more specifically charitable than the existing companies of penitents and orders of nuns.
He also protected the oratory, founded by the gloomy but popular preacher Fr. Yvan, like Gassendi a poor peasant's son, who stood head and shoulders above his contemporary clergy. During the plague of 1629-30 Gassendi noted, without comment, that all the priests fled Digne and abandoned the populace to its fate. A cynical member of the parlement observed the same phenomenon in Aix, 'for in time of pestilence the needs of the body are more urgent than the soul'. Fr. Yvan, his team of oratory priests, and the rector of the Jesuit college were the only ones who remained behind to administer soup to the living, consolation to the dying, and consecrate the mass graves. It is a measure of the government's suspicion of any Catholic revival in Provence that Fr. Yvan, who preached all his sermons in Provencal, was examined by Richelieu's agents as a potential subversive. Without De Valois' patronage he would never have overcome the official opposition to recognizing his new Order of nuns; partly because they had a revolutionary proviso: poor sisters without a dowry were not to be refused admission. Established Orders regarded this as scarcely less shocking than Protestantism.

It would be a mistake to suppose that the Counter-Reformation worked against the traditional Provencal emphasis on ceremony, saints and miracles; if anything it reinforced it, as Dr Evans has noted in eastern Europe, in a manner which made the empiricism of natural philosophers like Peiresc and Gassendi, for whom Baconian induction and Epicurean materialism were the models of scientific inquiry, less acceptable even to the educated. In the first third of the seventeenth century Peiresc was able to pursue his enquiries into a wide range of natural phenomena, largely without criticism, except when he provoked a popular demonstration by removing part of a relic of the Magdalene. Sometimes these trenches on the domain of popular superstition, as when he showed that a rain of blood, supposed to be a portent of divine wrath, was caused by the excrement of certain butterflies when dried in the sun; and went on to
suggest that similar prodigies, chronicled by monastic scribes in the past, had a similar cause; or when he examined the diabolic marks on supposed practitioners of witchcraft. But during his lifetime no one accused him of impious curiosity. On the other hand, the historian Haitze, writing later (in the 1670s), showed obvious hostility to Peiresc.

'Those naturalists who observe earthquakes.... in order to divine their causes are animated by a curiosity which leads them to forget the idea of God's judgement; we should not speculate on the nature of the rods which God selects to punish us, but rather seek to avert them by amendment.'

Haitze, who wrote a long treatise defending the truth of the Magdalene's visit to Provence, was a nobleman whose father had been a staunch supporter of De Valois and served in his regiment. Peiresc and Gassendi had both collected information on earthquakes and suggested various causes, so that either might have been the target for his criticism.

Similar sentiments flowed from the pen of a foremost champion of the Counter-Reformation, Fr. Yvan, in letters of advice written in the 1640s to De Valois and other noblemen:

'When the eye of the soul is darkened by self-love and the human sciences, all is darkness. If anyone wants to be a sage let him realise his folly,'

This was a palpable hit at De Valois, who was renowned for his knowledge of mathematics, classical languages, science and philosophy. At this time he was in correspondence with Gassendi on the subject of the Epicurean philosophy, moral and physical, which he seemed very much inclined to adopt. Perhaps this accounts for Fr. Yvan's warnings:

'The lukewarm are harder to convert than a Turk ... obstinate hypocrites likely to drop more swiftly than a stone, than to soar upwards since they live according to the senses and nature.'

This sounds alike a direct attack on Gassendi; since 1640 much concerned with the problem of falling bodies, placing an Epicurean emphasis on the
primacy of sense-data and basing morality on natural limits. Fr. Yvan's emphasis on the work ethic seems designed to combat the attraction which the Epicurean ideal of otium exercised on his correspondent:

'To want a life without suffering, without working, to die in a state of nature, without mortification or penance; this is the life of the flesh and the beast ... the way of pains, sufferings, crosses and bitternesses ... flies in the face of nature ... anyone who always chooses what is agreeable to nature, or the senses, and avoids what is disagreeable, will never have the virtues our Saviour had.'

This attack on the pleasure/pain psychology of Epicureanism, which Gassendi was endeavouring to prove compatible with orthodox Christianity, proposing that Epicurus' maxim 'sex pleasure never profited a man and he is lucky if it does him no harm', anticipated the Church's views of marriage and celibacy, shows Fr. Yvan to have had a clearer understanding of Catholicism and Epicureanism than modern scholars. He realized what ought to be obvious to any informed reader, that Gassendi's Epicureanisation of Christianity removed the whole concept of incarnation and sacrifice. Instead of imitating a suffering Saviour, Gassendi's disciple models himself on the detached leisure of Epicurean spectator-god. The curiosity in all this is De Valois himself, a testimony to the contradictions of baroque culture, who, right up to his death in 1653, continued to derive spiritual consolation from Fr. Gassendi and Fr. Yvan, indiscriminately.

The distinct attitudes of Fr. Yvan and Gassendi to the supernatural may be illustrated by Gassendi's response to a mysterious light which appeared to De Valois from behind his bed-curtains in 1643. Having stated cautiously that 'in matters of this kind ... the great danger is that we may show too much credulity or too little piety', Gassendi went on to question the whole concept of supernatural 'signs', so dear to the early modern concept of nature, by arguing that God does not play games by exhibiting ludicrous and isolated phenomena from which we cannot clearly
understand what is to be hoped or feared; what is to be sought or avoided. After suggesting an ingenious variety of natural explanations involving various optical phenomena, Gassendi tactfully declared himself baffled by the fact that De Valois' wife (remarkable for 'candour and virtue') observed exactly the same phenomena. Gassendi could therefore only 'stammer', a phrase which usually indicates equivocation on his part, and refer the matter to the prince's 'own temperate judgement'. This restraint was wise, as it later transpired that what De Valois regarded as a supernatural visitation, on a par with the appearance of Caesar to Brutus, was an elaborate charade by his maid-servant with a white sheet and a phosphorous stick, stage-managed by his wife, who frequently excelled Mrs Proudie in her zeal to manipulate her husband on political matters. Gassendi's Epicureanism in the matter of visions contrasted with Fr.Yvan's expertise in demons and apparitions. A skilled exorcist, he was able to show a young peasant girl that her visions of Christ and Mary Magdalene were ecstasies provoked by the devil. He himself had frequent commerce with armies of demons in various forms, 'such as horses or serpents with many coils'; and he believed such visions helped him to predict the future.

The only aspect of Provencal religion which shows any affinity with Gassendi's attitudes is the work of the blind anchorite Francois Malaval. For Malaval the world was the image of God, whereas scripture was only a shadow. Science was a truer theology than the study of the Bible, just as we learn more from a person himself than from a letter he has written. Since God was present everywhere in nature it was absurd to suppose he would miraculously intervene; the God of the Old Testament was therefore a mask rather than God's true features.

'Reflect as much as you like and as excellently as possible on the stars, the animals, the plants, the precious stones and all other portions of nature; get a thorough knowledge of man ... these are the reasonings which will lead you to God.'

Compared with the condemnations of human curiosity about sensible objects
reiterated with monotonous regularity by such theologians as St. Jerome, St. Augustine, John of Salisbury and St. Thomas Aquinas. Malaval's bold declaration that the study of nature alone 'gives a clean and polished mirror in which God can present himself' reads like a charter for the passionate enquiry of Peiresc and Gassendi into every detail of their environment. Turning Gassendi's tentative natural religion into pantheistic rhapsody, Malaval boldly asserted:

'There is no atom of earth, no drop of water, no particle in air, no point in the globes of the heavens, where God, Father, Son and Holy Spirit, are not present in their entirety. It is so in the animals, plants, minerals and even so into their smallest parts, even if each one has an infinity of parts.'

Accordingly Malaval rejects most features of the Provencal religion of his day as superstition: the idea of having holy days, since all times are alike to God, or holy places, such as churches, is purely human. He does not deny the validity of mass but compares it to 'making love to a wedded wife, handling money within a business' rather than a sacrifice or sacrament. To the true pantheist the idea of transubstantiation and incarnation are not merely irrelevant, but impossible. God cannot be more present anywhere than he already is. He agreed directly with Gassendi on a number of key points: nothing can be said about God which is not either false or a tautology. It is false to say he sits on a throne like a judge but a tautology to say he is good. He rejects the idea of sacrifices or petitionary prayers. True prayer is contemplation. He also embraces Gassendi's sensory psychology: 'Everything which comes through the five senses prints an image on the soul; the soul has two parts, rational and animal, and is animated by repugnance and sensuality'; errors and fantasies come not from the sense but by connecting the stored sense-data wrongly.

It is known that Gassendi had conversations with Malaval, who was born in 1627, and these probably occurred during Gassendi's visit to
Provence in 1649-52. In view of the advanced state of Gassendi's philosophy at that date, and the youth of Malaval, it is likely that any influence flowed from the older man to the younger. Gassendi's own philosophy is outwardly more respectful towards theological orthodoxy, inwardly more secular, than Malaval's. Another influence on Malaval was the quietism of Molinos; both writers were condemned at Rome and placed on the Index. If Gassendi is to be defended from the charge of total hypocrisy and be recognized as at least a sincere theist, then it seems likely that his own private image of God was much closer to that of Malaval than it was to either the gods of Epicurus or of the Old and New Testament. Fr. Sortais S.J. shrewdly noticed certain passages in the Syntagma which only make sense in terms of a pantheistic interpretation, and others which limit God's intervention in the world to conservation.

An ingredient in the dilution of Provencal Catholicism which should not be overlooked is Judaism. Behind the myth of Mary Magdalene's trip from the Holy Land is the probability that the first Jews to reach France came through Marseilles. According to Gassendi it was through Digne, in Roman times, that their merchants moved on into Gaul. Carpentras, in the papal states, had the oldest synagogue in France. In the Middle Ages Jewish scientists, astronomers and instrument-makers, flourished in Provence, along with merchants and money-lenders. Gassendi and Peiresc were both in contact with the rabbi in Carpentras trying to obtain medieval manuscripts, prompted by the hope of advancing modern science as well as humanism, through Jewish scholars. Both Gassendi and De Valois knew Hebrew, and Peiresc made important contributions to Jewish scholarship; for example in purchasing and financing research on a rare edition of the Samaritan Pentateuch. One of Gassendi's closest international correspondents, the Lutheran Schickard, was Professor of Hebrew at Tübingen. Gassendi's friend, and fellow Provencal priest,
Jacques Gafferel, was a most learned if eccentric Hebraist. His work was condemned by the Sorbonne on the grounds that it restated the rabbinical arguments against the divinity of Christ and treated rabbinical learning too sympathetically. It is notable that whereas Hebrew studies were institutionalised in Protestant centres of learning they remained amateur or semi-clandestine in Catholic states. Having recanted, Gafferel went on to become Richelieu's agent collecting rare manuscripts in the Middle East, writing further books on the Kabbala and surviving yet another charge of heresy in 1641.58

Although it can be argued that when Jews were officially expelled from Provence in 1500 they disappeared or were absorbed in the mass, surviving only in papal Avignon, the persistence of anti-Semitism into the seventeenth century negates that view. As the example of Spain shows, Jews could survive clandestinely even when officially converted for generations; 'France knows no inquisition' declared Du Vair when Avignon tried to examine the opinions of clergy outside its borders.60 Ex-Jewish families achieved respectability in medicine, law and even public office. The Nostradamus family had Jewish origins, and it seems likely that the La Céppède, the poet who was Peiresc's cousin and was First President in the Chambre des Comptes, were conversos from Spain.61 Anti-Semitic attacks by the poet Malherbe on the murderers of his son, and the judges in the parlement protecting them, together with anti-Semitic speeches by Avocat General Monier, suggest that converted Jews had been successful in purchasing office in the parlement and by this means eventually became the first families of the province.62 Forged genealogies were one way of concealing this development, and Peiresc, himself an expert genealogist, complained that Nostradamus' genealogies in his history of Provence were at variance with the primary sources.63 The tendency of the parlement families to inter-marry, in order to protect the hereditary character of their investment, helped to reinforce their
determination to cover up the legitimacy of each other's lineages. The Thomassin, who traced back to a Burgundian crusading family, had in 1640 eighteen relatives holding office in the parlement. According to their detractors they were converted Jews and merchants, totally obscure until the purchase of office in the 1560s, when adhesion to the politique party during the religious wars, brought them to eminence. Like the family of Chasteuil Gallup, of whom the same accusation was made, they produced not only jurists but outstanding men of letters. It was Francis Chasteuil Gallup, an oriental linguist who worked for Peiresc on the Samaritan Pentateuch, who took the remarkable step of returning to the Holy Land to live as a hermit on Mt. Lebanon. An expert in mathematics and astronomy, as well as languages, he continued to communicate with Peiresc, sending him astronomical observations and rare books. Jews were also important in providing go-betweens with the Turkish authorities in ports like Alexandria and Aleppo on which the Marseilles' merchants depended.

There was a diffused feeling of anti-Semitism in Provence, which might have welcomed an inquisition against 'new Christians' but never became a fulcrum for political action. It is not clear why striking labourers in 1636 held up placards reading: 'Set the Jews to weed your fields', or for what purpose the letters attributed to the 'Prince des Juifs, Constantinople' advising the Jews to 'make your children merchants, apothecaries, doctors, theologians, lawyers and councillors in the parlement, so that the gentiles' health, wealth, religion and government will be in your power', were forged or how widely they were circulated.

The astrologer J. B. Morin, who had worked as a mining engineer in Transylvania and was a member of Provencal intellectual circles, enjoying the protection of Du Vair, associated in an inflamed imagination anti-Semitism with witchcraft. He was convinced that anti-Christ had already been born to a Babylonian Jewess, from the seed of the priest-magician
Gaufridi, executed in 1611. He accepted the arguments of Jean Bodin that conventicles of witches were poised to take over the world. Accusations of child-murder were not unknown against Jews in medieval Provence, and this was a common charge against witches, so that Morin's amalgam had a certain consistency. Popular anti-Semitism in Provence formed a pendant to hatred of Vaudois, heretics and foreigners generally: like the Turkish ambassador and his suite, torn to pieces by a mob in 1620, or the Moorish slaves, recruited for a comedy ballet in 1648, whose presence provoked a riot in Aix because of the rumour that they planned to strangle the male population in the night with bow-strings. It might be supposed that the theories of Morin belonged firmly to this milieu, and would put him beyond the pale of civilised society; or, as Gassendi's sceptical friend Bernier put it, 'among those who should be restrained with stick and whip'. There was perhaps evidence for a changing attitude among the parlement. Madeleine Palud, whom Morin cited as a source for his story of the Jewish anti-Christ, and who had been seduced by Gaufridi when a young teenager, was again examined by the parlement in 1653 when she herself was accused of witchcraft. Instead of executing her, the parlement sentenced her to perpetual restraint in a religious hospital; this time there were no attempts at exorcism. Yet Morin himself remained a respectable figure, astrologer to Cardinal Mazarin as he had been to Richelieu since 1630. His charges against Gassendi, whom he compared with Gaufridi, were that under a cloak of piety he sought to use Copernicanism and scepticism to subvert the Catholic Religion. Bernier found them of a piece with his witch-mania and anti-Semitism.

Nonetheless it cannot be doubted, from the standpoint of the history of ideas, that the penetration of the ruling élite in Aix and Marseilles by the descendants of Jews who became Catholic for largely social reasons was an important contribution not only to the cultural brilliance of a
remote provincial capital but to the current of anti-Christian influences detectable in the attitudes of Peiresc, Gafferel, Gassendi and other Provencal libertine. It is important to keep this matter in proportion. Provence never experienced the rash of judicial executions which marked the witch mania of neighbouring Switzerland or the obsession with institutionalised limpieza of Spain. But that this did not happen was in no small measure due to the fact that the authority of the parlement was firmly set against such fanaticism. Vovelle's study of deChristianisation in eighteenth-century Provence indicates that it was the parlement class which were the first to abandon traditional forms of Christian piety, for example in wills and other legal documents; whereas the rest of the nobility remained conservative in such matters right down to 1789.

It would be difficult to argue that any element in the popular devotion of Provence provided Peiresc or Gassendi with a model for scientific enquiry. The minimal place accorded to religion in Gassendi's life of Peiresc reflects that; as does the absence of dogmatic theology from the 1630s draft of Gassendi's Epicurus. If anything, religion was a counter-model. The urgency of avoiding 'superstition', a conveniently vague concept, was the original source of Gassendi's attraction to Epicurus and Lucretius, with their emphasis on the elimination of fear of the unknown and the supernatural through science. This was linked, intellectually, to the desire to deliver science from the essentially religious context of scholasticism and, politically, with the social and economic disasters associated with the religious wars.

The passage opening Lucretius' book III, in which fear of death was denounced as a source of a superstitious hypocritical religion appeasing death by ritual and sacrifice; and

unde homines dum se falso terrore coacti effugisse volunt longaque remossa
sanguine civile rem conflant divitasque
conduplicat avidi, caedum caede accumulant
 crudeles gaudent in triste funere fratris et consanguineum mensas odere timentque
was not quoted in Gassendi's work. But Lucretius' claim that a psychological law connected belief in a supernatural order with greed, cruelty and civil war must have seemed more appealing in Provence in the early seventeenth century than it did in its original context of the disorders of the Roman triumvirate. It was love of truth which Gassendi singled out as distinguishing his point of departure from that of the scholastics; a claim which seems outrageously polemical unless it is placed in the context of Gassendi's efforts to revive the classical ideal: that the pursuit of truth and the quest for the virtuous life were closely linked. For Lucretius the truth about the physical world and man's superstitious psychology were two faces of the doctrine which brought liberation from greed, violence, ambition and hypocrisy. The passage on the social divisiveness of the supernatural ends with one of Gassendi's favourite quotes:

hunc igitur terrenam animi tenebrasque necessest
non radii solis neque lucida tela diei
discutiant, sed naturae species rarioque. 79

One of Gassendi's close companions in Paris in the 1640s, exiled by religious fanaticism from England, was Lady Margaret Cavendish, patroness of Hobbes. She wrote, when still in Paris, in 1650:

'It is better to be an atheist than a superstitious man; for in atheism there is humanitie and civility towards man and man; but superstition regards no humanity, but begets cruelty to all things even to themselves.' 80

Gassendi would never have written this, but at the risk of being accused of male chauvinism, I think it is doubtful if the thought would have occurred to Lady Cavendish had she and her husband not spent six years as intimates of Gassendi and his circle. It is a crude but unmistakable paraphrase of the sentiments of Lucretius in the passage just quoted and faithfully echoes the use of 'superstition' then current with Gassendi and other libertins érudits. 81
(11) Religion

1. Bibliothèque Nationale MS na fr. 4236 f. 55
   "sans la séparation des Alpes elle pouvait passer pour partie de
   l'Italie...Les vices sont aussi fréquent en ce pays que l'hérésie
   y est rare...Je me sens autant étranger que les allemands à Paris."

   p.102 quarrels between rival factions was one cause of the
   multiplication of colours.

3. Aix Métanès MS 831 f. 902 "Harangue de l'avocat general Monier"

4. see ASSENDI AND THE CHURCH

5. F. Braudel The Mediterranean and the Mediterranean World in the Age
   of Philip II 1966 pp.1204-1216. There is no recent study of Provence
   in the religious wars.

   J. Salmon Society in Crisis : France in the 16th century 1975 has a
   few references to Provence,

6. R. Mousnier Vénalités Chrétiennes sous Henri IV et Louis XIII 1946
   M. Derlange 'Les communautés de Provence au XVIII' Annales du
   Midi 1974 pp.52-3


8. Pintard Libertinage Erudit 1943 pp.11-13 E. Thau Raison d'État...
   1966 pp.397-405

9. op cit (1) f.44, Pintard op cit pp.200-3. 239 seq.
10. see M. Dreano La Pensée Religieuse de Montaigne passim

11. R. Pillorget Les Mouvements Insurrectionnels...1975 p. 23


13. 0,0. II p.813a, the title of the chapter is 'De annexis justitiae
   Virtutibus Religione, Pietate, Amicitia et Gratitudine';
   annexus meaning merely 'connection'.

14. 0,0. II p.809b


16. Haitze 'Histoire du Gouvernement du Comte d'Alet'. Aix Métanès MS 1865
   f.117, 179, Lublinskaya ed. Lettres et Mémoires a Chancelier Séguier
   1966; 'Provence'; de Vautorte to Seguier 22 1643

   the Duke of Guise was governor of Provence from 1595 to 1630 when he
   went into exile in Italy as a protest against Richelieu. Louis de
   Valois (governor 1636-50) married his only daughter to the son of the
   exiled Duke (who died in 1640).

18. H. Bouche La Chorographie ou description de Provence 1674 II p.886
   this was in the riot of 1630. Cassendi helped Bouche gather
   materials for this work.

19. Bouche op cit p.856. The locusts were exorcized by the Archbishop
   of Arles and were all drowned (1616), p.871 fire at Manosque
   extinguished 1628, rain-making rites MS Aix Métanès 902 f.565; for
   Fr. Yvan's skill as a rain-maker and in saving the vines round
   Cotignac from hailstorms see J. Brémont Provence Mystique 1908 p.45
M(II)

20 0.0. VI p.808a Cum nihil autem sit necesse excusare, quod Epicurus non funditum Religionem sustulerit; non templas arasque everretur; quatenus Deum colendum censuit, non quidem propter beneficia ab eo accepta, aut sperata; sed propter naturam supremam maiestatemque eximiam (quod fieri debere erga Deum amorem, cultumque non mercenarium, aut servilem, sed liberallem, fillanque declarant) cum nihil item elevare, quod non tam religionem, quam superstitionem eius asseulam tollere e medio visus fuerit. Porro cum innumera sunt quae adversus superstitionem commemorari (Theophrasto, Cicerone, Plinio, Plutarcho, Thales, Anaxagoras) id subilicere tenen sufficit, quod Cicero habet ... ut superstitionem funditus tolleret, quae fusa per gentes, oppressisset omnium fere animos, 'ut Religio propaganda etiam est, iuncta cum cognitione naturae siic superstitionis stirpes omnis efficiebant'.

But far from using his position as a priest to promulgate science and religion in unison, Gassendi was careful to avoid the imputation that he found any Provencal Catholic practice superstitious, keeping science as far as possible separate from religion.

21 0.0. VI p.369 Louis de Valois complains: 'Saturnalia celebramus more gentium Romanorum rerum Dominorum'; and p.380 'Sacchanalia huius gentis more sacratissim corporis Christi solenmitati miscuimus.'

Neure entitled his attack on the festival Querela ad Gassendum 1645 in which he took a side-wipe at a range of Provencal devotions, denouncing the absurdity of the Magdalene legend. But even this public use of his name did not draw any comment from a cautious Gassendi. Privately he wrote: 'Deus qua bonitate est veritatem prostrani aut jaceri non sinet.' VI 1.32b and 'quam pie sequar pietae habeo.' His prudence was amply justified when the Aix mob depicted De Valois and his wife as giant mannequins in the carnival of 1649 ... 'with a device for raising a flap in his breeches which emitted puffs of smoke.' His principal allies and advisers (but not Gassendi) were personated by clowns.

22 Montaigne ad. Du Seuill 'une police c'est un bâtiment de diverses pieces joints ensemble de telle liaison qu'il est impossible d'en étrancher une que tout le corps ne s'en sente.' p.62b police = organization (Church or State)

23 Blet, P. Le Clerc de France et la Monarchie 1959 I p.95; op cit n.11 p.110 parlement has 'supplanter et anéanti la jurisdicction ecclésiastique mesment en choses spirituelle.'

24 Histoire de la Provence ed. Privat p.283 op cit n.11 p 585

25 Aix Méjanes MS 902 f.177 : secular magistrates condemned a priest for buggery. The Archbishop excommunicated the whole tribunal, but Du Vair won. f.214, Du Vair won for the parlement the right to determine the order of ceremony in all religious processions. f.294 the Archbishop had a 'strike' of cathedral services about parlement's interference in seating and the parlement forced him to dismantle a new baroque episcopal throne. In all these cases the argument was 'la police extérieure de l'église' was a secular matter for lay courts to determine.
Whilst it would be misleading to give the impression that Du Vair did not believe in witchcraft very strongly – and used this case simply because it involved a priest and convent girls in a particularly juicy scandal, he himself admitted (Bibliothèque Nationale ms. f. 5130 f.1) that he was by nature 'as little inclined to credit the paranormal as anyone', but this case was 'un moyen miracule si extraordinaire que je veux croire que Dieu ayt voulu servir de cette occasion.' The evidence of the exorcisms, which Du Vair claimed convincing, seems insufficiently weighty to convince a sceptic. They did not convince the Vicar General of Aix, Prior Gaultier, who assisted throughout and later confessed his reserve to Gassendi. For the 'evidence' see Bibliothèque Nationale n.a. fr. 23852 f.209; Gaufridi, who had been tortured, withdrew his earlier evidence that friars were frequent guests at sabbath orgies (sodomy on Thursdays, bestiality on Saturdays and fornication every other day) and explained that he had meant to say Benedictines. His exorcist, Michaelis, had been appointed by Du Vair to be a Dominican abbot. The medieval rivalry between friars and black monks was evidently very much alive.

Peiresc was Du Vair's secretary and one of those on the Gaufridi tribunal. Two outstanding examples of his secularism are his enthusiasm for John Seldon's book on tithes, which was rejected as anti-clerical by contemporary Anglicans, and for Paolo Sarpi's anti-papal History of the Council of Trent. Aix Méjanès 1030 f.157. For Seldon's impact in England, E. Hill Economic Problems of the Church 1968 pp. 78 and 121

Significantly this coincided with campaigns against Protestantism within France and a pro-Spanish foreign policy.

Grain prices in Provence continued to rise till the middle of the century whereas in the rest of France they were falling from 1600; see R. Briggs Early Modern France 1977 1560-1715 appendix graph 1

However, she cannot have consulted the correspondence between the intendants and the merchants on this subject in Lublinskaya Lettres et Mémoires 1966-Provence: 1644. Champigny to Séguier, Regusse to Séguier; or what De Valebelle, a leading grain merchant, wrote on the subject in his private memoirs, Aix Méjanès MS 1052/3f. 362/3. If Valebelle, a man without scruple, could have got his grain out simply by bribing the governor he would not have been at such pains to smuggle it out via the knights of Malta.

De Valois' concern for the plight of the poor was thoroughly genuine; Bouche op cit. n.10 II p.906 Bremont La Provence Mystique pp. 126-7

Haitze Histoire de la Ville d'Aix (IV) p. 350
Aix Mejanès MS RA 8 f.202 Fr. Yvan, his oratory priests and the Jesuit rector alone 'ont soulagé les pauvres et confessé la plus grande partie du peuple.' BREMOND La Provence Mystique p.45. The Archbishop of Aix, Richelieu's brother, suspended him for a time from his priestly functions. Later, in 1659, he invited him to console his deathbed. Bougerel Vie de Gassendi 1737 p.370 et seq.

The cost of dowries for secular brides as well as brides of Christ had risen sharply.

Much of his reflections on the relations of science and Roman Catholicism in central Europe may be carried over, mutatis mutandis, into Provence: except that the sceptical tradition there was stronger.

De Valois cheerfully accepted Gassendi's arguments O.O.VI p.341a Dec.

But he was more likely to be thinking of Peiresc whom he sneers at several times in other contexts calling him 'votre grand Peiresc' and mocking him for his neglect of his legal duties for research and his failure to see through what, by the 1670s, everyone saw as Gaufredi's 'Imposture', 'for all his learning'. HAITZE Histoi=e de la Ville d'Aix (IV) pp.43 and 60.


De Valois cheerfully accepted Gassendi's arguments O.O.VI p.341a Dec.

'Huius veri temporis philosophantes Christi sui imbuti dogmatibus Epicurum inauditum damnant' and that to seek eternal life and live for the moment were not incompatible; pp. 342a and 369b.

Op cit n.40 pp.133, 144 and 284.

0.0. (V) p.674a Digne left 'sine ullo culto divino' 1629-30

Aix Mejanès 'Histoire du Gouvernement du Comte D'Alet f.247 in the constitutions Yvan declared the rich to be God's adopted children who had excluded the poor, or legitimate, from religious houses. In the seventeenth century the cost of dowries for secular brides as well as brides of Christ had risen sharply.

R.J.W. Evans The Making of the Habsburg Monarchy 1550-1700 1979 p.386 'Catholicism's complicated rites for seasons, festivals, processions, and the like, with all their half-comprehended associations, left the individual priest as arbiter, having power to create a little heaven on earth whenever he uttered the formula of benediction ... while the authorities made some attempt to eliminate accretions or legend ... no-one could go far without the risk of falling into crypto-protestant error.'

p.339 'Thus empiricism had its proper but subordinate place in the philosophical priorities of Central Europe. Experiment served ultimately to prove old assumptions; it was part of a preconceived harmony of knowledge.... New potentially disruptive forces were held within a traditional matrix: a mental stance by no means inflexible but embattled.'

Much of his reflections on the relations of science and Roman Catholicism in central Europe may be carried over, mutatis mutandis, into Provence: except that the sceptical tradition there was stronger.

0.0. (V) p.270a rain of blood and the butterflies 'not as some theologians thought the blood of innocent children murdered by demons'. (This was two years before Gaufredi's trial.) Correspondance de Mersenne ed. Tannery/Waard (v) letters 412, 17, 24, 31, 33, 35, 44 etc. their attitude was cautious but critical; genuinely open-minded about witch-claims. An experimentum crucis, conducted by Gassendi on a witch, who was observed to be all night in her cell but next day related her experiences of flying and sabbath orgies, was cited by Cyrano de Bergerac in his Oeuvres Diverses 1654 pp.810-96. Gassendi, for some reason, merely hinted at his own disbelief in witchcraft in his Opera Omnia. He was bolder in Animadversiones 1649 pp. 1,653-4.

Op cit n.35 f.279-80.

But he was more likely to be thinking of Peiresc whom he sneers at several times in other contexts calling him 'votre grand Peiresc' and mocking him for his neglect of his legal duties for research and his failure to see through what, by the 1670s, everyone saw as Gaufredi's 'Imposture', 'for all his learning'.
43 Epicurus ed. C. Bailey p.115 0.0. III p.76 Even Gassendi had to admit that chastity was against nature, but he persisted in avoiding any but natural criteria in discussing it. A moderate vegetarian diet was advocated for all celibates to reduce the pressure of surplus seed: 'This works for other living beings and also trees, even the most prolific.' 0.0. II 777a.

44 Some Aix intellectuals were mocking Fr. Yvan for the lack of polish and order in his popular sermons. Gassendi answered, 'You might say the same of St. Paul or St. Augustine.' Brémond Provence Mystique p.138. This answer reflects the duality in Gassendi's thought: for it might be taken as a defence of Fr. Yvan by the faithful but as an attack on the coherence of Christian writers by a sceptic.

45 Op cit n.40 p.296 Yvan's supernatural powers were so terrifying that at one stage he was accused of witchcraft himself.

46 T. Aquinas Summa Theologica Q 167-8 Art. part II-II; he quotes the others.

47 Op cit n.47 pp.16, 24, 26 and 42

48 Op cit pp.83-7

49 See Moréri Grand Dictionnaire Historique article: 'Malaval'

50 M. Molinos (1628-96) rejected the idea of serving God in the hope of hell and heaven, or material reward, and advocated submission to his will rather than prayers of petition. He was not sympathetic to natural science, so this idea was original to Malaval; who was not condemned till 1688. The Quietist movement in France was again condemned in 1699.

51 D. Lindberg Science in the Middle Ages 1978 p.80. Jewish scholarship was distributed along a crescent from Catalonia to Italy, in which Languedoc and Provence occupied the centre. See Encyclopaedia Judaica 1922 (II) pp.109-17.

52 D. Lindberg Science in the Middle Ages 1978 p.80. Jewish scholarship was distributed along a crescent from Catalonia to Italy, in which Languedoc and Provence occupied the centre. See Encyclopaedia Judaica 1922 (II) pp.109-17.

53 D. Lindberg Science in the Middle Ages 1978 p.80. Jewish scholarship was distributed along a crescent from Catalonia to Italy, in which Languedoc and Provence occupied the centre. See Encyclopaedia Judaica 1922 (II) pp.109-17.

54 D. Lindberg Science in the Middle Ages 1978 p.80. Jewish scholarship was distributed along a crescent from Catalonia to Italy, in which Languedoc and Provence occupied the centre. See Encyclopaedia Judaica 1922 (II) pp.109-17.

55 D. Lindberg Science in the Middle Ages 1978 p.80. Jewish scholarship was distributed along a crescent from Catalonia to Italy, in which Languedoc and Provence occupied the centre. See Encyclopaedia Judaica 1922 (II) pp.109-17.

56 D. Lindberg Science in the Middle Ages 1978 p.80. Jewish scholarship was distributed along a crescent from Catalonia to Italy, in which Languedoc and Provence occupied the centre. See Encyclopaedia Judaica 1922 (II) pp.109-17.

57 D. Lindberg Science in the Middle Ages 1978 p.80. Jewish scholarship was distributed along a crescent from Catalonia to Italy, in which Languedoc and Provence occupied the centre. See Encyclopaedia Judaica 1922 (II) pp.109-17.

58 D. Lindberg Science in the Middle Ages 1978 p.80. Jewish scholarship was distributed along a crescent from Catalonia to Italy, in which Languedoc and Provence occupied the centre. See Encyclopaedia Judaica 1922 (II) pp.109-17.

59 D. Lindberg Science in the Middle Ages 1978 p.80. Jewish scholarship was distributed along a crescent from Catalonia to Italy, in which Languedoc and Provence occupied the centre. See Encyclopaedia Judaica 1922 (II) pp.109-17.

60 D. Lindberg Science in the Middle Ages 1978 p.80. Jewish scholarship was distributed along a crescent from Catalonia to Italy, in which Languedoc and Provence occupied the centre. See Encyclopaedia Judaica 1922 (II) pp.109-17.
62 Aix Médjanes R. A.B f.137 'Judaïsme s'est étendu jusque sur la Seine Il serait à souhaiter qu'il fur demeure sur le Jordan. Il n'ya remede ma course est bonne, je combatray partout et je vaincray partout ... fur ce dans Jerusalem et devants les douze lignées d'Israel.' This is a side of Malherbe ignored by literary historians.

1611 Aix Médjanes 775 f.8 Monier spoke of a 'secret conspiracy' and of the origins of these families in 'vile, mechanic arts' and 'usury' which they continued to practise. There was certainly a big influx of new councillors with commercial backgrounds between 1560 and 1600.

63 Quoted in Bougerel Vie du Pèlerin 1737 p.11; O.O.V.P.337 Les Correspondants de Peiresc (II) ed. Tanizay de Larroque

64 P.Claire Louis Thomasin 1964, Maynier Histoire de la Noblesse de Provence

65 Aix Médjanes 902 f.718 Someone had scrawled on their family tree 'selon les nobiliares'.
Aix Médjanes 1790 f.16 Monier argued it was the venality of offices which opened the parlement to the Jews 'who by money favours or their relatives now make up half the parlement'. The Knights of Malta decided to exclude Jews from their membership in the same year (1611).

66 Maynier Histoire de la Noblesse de la Provence pp.9-32, O.O. V p.172

67 The wealthy Claud Marc of Tripoli (op cit n.59) p.196 may not have been of Jewish stock—though the parlement family of Saint-Marc were on Monier's list—but his business partners in Syria almost certainly were, see Braudel The Mediterranean and the Mediterranean World in the Age of Philip II 1973 p.727-8. In 1664 Colbert was aware of the importance of the Jewish community in Marseilles in reviving its Levantine trade. The Jews and Modern Capitalism W. Sombart ed. 1962 p.39

68 p.169 op cit n.59: one possibility is that their seigneur, de Cadenet, was on Monier's list of 'conversos'. There was also agitation about witches at Cadenet in 1610.

69 Aix Médjanes 775 f.8.

70 Recueil de Lettres des Sieurs Morin ... 1650 p.60 for the mechanics by which, it was widely accepted, such diabolical insemination was possible, see European Witch Craze...H.R.Trevor-Roper (Penguin) pp.17-18

71 Op cit n.70 p.61. He believed that perhaps one quarter of mankind were secret sorcerers and that the armies of anti-Christ were within three years of success.

72 N. Cohn Europe's Inner Demons 1975 points out that the idea that anti-Christ would be mothered by a Jewish whore was at least as old as tenth century, p.234. He stresses also the links between the mentality behind the witch-manuals and the protocols of the elders of Zion. See also Baron The Jews: Social and Religious History (XV) 1973 pp.76-104


74 Bibliothèque Nationale/23852 f.490. It is clear that she was found guilty of the crime of 'irreverence towards the sacraments' rather than witchcraft. But her restraint seems to have been designed to stop her spreading rumours, such as her tale of the insemination of anti-Christ, rather than as punishment.
Gassendi's defenders had an obvious motive for presenting them as ridiculous: F. Bernier, *Anatomia ridiculi muris*—J. B. Morini, *astronomi, adversus expositam a P. Gassendo Epicuri Philosophiam Itemque obiter Prophetiae falsae a Morino ter evulgatae, de morte eiusdem Gassendi* 1651.

In his attacks on the Provencal conversos (op cit n.65) one of Monier's complaints is 'ils veulent tout savoir'. Within the context of Christian suspicion of curiosity and its association by the Church Fathers with greed, lust and cruelty, this idea that study was wrong if it had improper motives was thoroughly explicable. 'Is it not evident that the man who day and night wrestles with logic, or the student of natural science whose gaze pierces the heavens, walks in vanity of understanding and darkness of mind?' St. Jerome Commentary on Epistle to the Ephesians iv 17.

M. Vovelle *Piété Baroque et Dechristianisation en Provence* 1973 p.64

O.0. V 337a He can find little more to say of his religious life than that 'he was always inflexible in attending all public ceremonies, as far as his health permitted.' (His health was not good.)

De *Rerum Natura* III 68-93 (compare with top of page 11).

Kargon *Atomism in England from Harriot to Newton* 1966 pp.73-4.

For Naudé's use of the term *Pintard Libertinage Erudit* p.474
For Gassendi's more ambiguous attitude op cit p.494.
(iii) The Law

The general pattern in medieval Europe from the thirteenth to the seventeenth century, was for a revived Roman Law to superimpose itself on a framework of feudal and customary law. Provence differed in that its customary law was essentially Roman. This meant that the jurists of the parlement in the sixteenth and seventeenth centuries, trained in Renaissance tradition, could make some claim to be scraping off the cake of medieval customs to restore a surviving tradition. Two key features of Roman law were its fidelity to the concept of private property and the ease with which its emphasis on the discharge of contracts facilitated the enforcement of usurious agreements. Feudalism, with its maxim that there was nul terre sans seigneur, and the canon law, which condemned usury except where the borrower was a corporation, whose lands were theoretically inalienable, were obstacles to the generalized success of Roman Law principles. But French monarchy of the sixteenth century, with its need to curb the explosion of feudalism in the aftermath of the hundred-years war and assert control over the Church, after the papacy's departure from Avignon to Rome, found in Roman legal theory the ideal weapon for enforcing these two aims. The ease with which the regional parlements, with royal backing, were able to turn themselves into both supreme courts and courts of first instance, short-circuiting the courts of the clergy and nobility and attracting swarms of litigants, gives the whole process an air of inevitability. But there was nothing inevitable about it. In eastern Europe, during the same period, the trend towards royal justice was successfully reversed. It was no accident of progress but rather the result of a deliberately anti-feudal, anti-clerical policy, as is evident from the sentiments openly proclaimed in such juridicial treatises as those of Charles du Moulin or Guillaume Budé.
These writers established the method, still being used by such scholars as Dupuys and Godefroi in the time of Gassendi, of cumulative historical research within the Renaissance tradition of impartial scholarship, to liberate the revolutionary principle of a State progressively set free from the shackles of laws, local and customary, natural and divine. The foundations of this school of thought, which took its rise in Italy, were closely related to Machiavelli's reason of State. Under Richelieu and Mazarin the use of erudite scholarship to legitimise the territorial acquisitions, which absolutism had made by the sword, was brought to such a pitch that modern historians marvel at the fineness of their attention to legal niceties. Some historians, who take such manoeuvres at face value, concluding that raison d'état must have been a deeply moral philosophy, are evidently ignorant of the medieval maxim, 'the more learned the lawyer, the further bends the law'. If we probe the activities of the parlementaires themselves, whose legal decisions in the 1680s doubled Louis XIV's territory in eastern France without firing a shot, we find that despite their low salaries they held, as one Provencal put it, 'the grandest mansions and the best land'. The same Roman Law, which befriended the absolute monarch, also favoured the designs of those who made usurious loans to the peasantry and then confiscated land, crops, tools, when famine, plague or a rise in government taxation made it impossible to pay arrears of interest. Naturally to enforce such a claim in a time of social dislocation might cause the creditor much expense and prolonged litigation. But when the lender was himself a councillor of the parlement these difficulties evaporated. All over France, in the first half of the seventeenth century, members of the legal classes were carving out vast estates at the expense of the old nobility and peasant alike. Such legal gentry had additional advantage: they could use their influence with local tax officials or their legal knowledge to exempt the tenants on their estates from royal
taxation. The dependence of Crown on parlements, parlements on the Crown, caused successive monarchs to turn a blind eye to their acquisitive habits which, as Richelieu so happily expressed it, were 'disorders not without utility for the State's order'.

It was a Provencal proverb that 'parlement, Mistral et Durance sont les trois fléaux de Provence'. Much of the governorship of Gassendi's patron, De Valois, was occupied in an ultimately unsuccessful effort to reform judicial procedures, reduce legal corruption and speed up the settlement of cases. But it soon became evident that little progress was to be expected, if the parlement itself remained intact to block it, and efforts to replace the parlement were doomed to failure. The institution had become too powerful, too closely identified with French authority in Provence. Its members were prepared to resort to mobster tactics of sudden assassination, or the bribing of armed insurgents to promote public insurrection, to preserve their judicial monopoly unchecked.

Despite their unpopularity with most of the old nobility, with the radical element in many towns, and with ordinary people, the parlement survived. It was De Valois who was recalled to die in disgrace. After Gassendi's death, in 1655, his own nephew purchased a councillorship and became a member of its charmed circle.

Unlike religion, law had always been regarded, even by Aristotle or St. Thomas Aquinas, as providing a model for science and scientific enquiry. It has been suggested by G. Lloyd that the emergence of the concept of a rational proof structure in science and mathematics, in fifth-century Athens, was closely related to the procedures of the new democratic assemblies and popular courts. Gassendi certainly recognised the parallel between rival litigants, contending physical theories, and the crucial role of independent assessment of evidence in arbitrating between them. For Aquinas the legal system, like the sciences, had to
be deduced from universal... but undemonstrable axioms of natural law; both became more uncertain the closer they descended in the regulation of particulars. At the well-spring was absolute certainty, but cloudiness grew in the subjective application. In the sixteenth and seventeenth centuries it is interesting to note how many of those associated with the scientific revolution, or with the renewal of mathematics, had a legal training; particularly in France. Copernicus' doctorate was in canon law, Bacon was a Lord Chancellor and a frustrated law reformer, Peiresc studied law in France and Italy and was a councillor in the Aix parlement. Pascal and his father were both from the legal/administrative class, the mathematicians Viète and Fermat were councillors in the parlements of Brittany and Toulouse respectively, Descartes' father and brother were in the parlement of Brittany. In Holland, De Witte and Huygens were from eminent legal families. Many of those scholars who were interested in science as amateurs, such as the Godefrois, the Du Puys, Carcavi and Chancellor Séguier, were lawyers. So were most of Gassendi's erudite Parisian and sceptical friends: Luillier, in the chambre des comptes and the parlement at Metz, La Mothe Le Vayer, Molière, Naudé, Bouchard, De Bergerac, were all scions of minor officials; Diodati, his go-between with Galileo was a councillor in the parlement of Paris. Was there a relationship between changing ideas of law and changing attitudes to science? Descartes observed: 'Those peoples who were formerly semi-savage, and who have been gradually civilised, have made laws only as the inconvenience of crimes and quarrels has constrained them, cannot be as well policed [politically organised] as those who began their assemblies under the constitutions of prudent legislators.' For him the Roman law codes were not merely a model of good government but a model of how God must order the cosmos. For Bacon, on the other hand, in the accumulation of instances through inductions, there is an
echo of the accumulation of precedent, so crucial, not only in English common law, but in such massive attempts at clarification through codification as Du Puy on Church/State relations, Godefroi on precedence and ceremonial, or Grotius on international law all three enterprises among those assisted and encouraged by that Gallic Baconian Peiresc. The mathematician Fermat is another example of a legal Baconian. 22

The retreat of lawyers from the medieval view that divine and natural laws provide the standard for legislation, that a law which contradicts them had no force, was accompanied by a tacit assent to Gassendi's view that laws were a matter of their utility to the community which they served. This was the mainspring of the hostility to canon law on the part of De Thou, Du Puy and Paolo Sarpi. 23 The idea of sovereignty, formulated by Bodin, during the wars of religion, prepared the way for Gassendi and Hobbes by disengaging the State, as legislator, from the armature of clerical and feudal limitations. 24 But the idea that France had a fundamental unwritten constitution, what Seyesell called its 'police', survived into the Fronde, when it was used to criticise the arbitrary policies of Mazarin. 25 Pascal scornfully condemned this view as a political 'mirage', following Hobbes, Mersenne and Gassendi in denying the existence of absolute justice, except within the context of the geographical and historical limits of a given legal system. 26 If we forget the difference between Descartes and Bacon, and regard them as simply focusing their attack upon different aspects of the same tradition, then Descartes may be seen as assailing Aquinas' defence of the right of oral custom to abolish and interpret law. Bacon, on the other hand, is questioning the deduction of law and custom from absolute principles. Descartes wants to replace an accumulation of traditions with an objective system; Bacon to induce the new general principles from an objective data. 27 This was a logical development from the medieval context where the analogy between law and science was direct. Gratian's collection of decretals, in the twelfth century, adopted the
definition of nature used in the school of Chartres.\textsuperscript{28} Aquinas justified the modification of law by custom in terms of the modification of Greek science by scholasticism.\textsuperscript{29}

As Gusdorf put it:

'1'exigence mécaniste d'unification rationelle du domaine humaine par les disciplines du droit est la contre-partie de l'ordonnance physique du domaine naturel.'\textsuperscript{30}

Although, until 1789, the French lawyers and the monarchy effected revolutions by creating institutions and procedures which reduced the old to nullities, rather than by outright abolition, this did not always disarm criticism of threats to fundamental rights or ancient customs. There was a rooted belief that time conferred its own legitimacy. Even parlements, though often flouting this to expand their own jurisdiction, were not averse to flaunting it in their battles with the Crown. Gassendi's own ambivalence to tradition, his fondness for long citations from ancient writers and deference to scholastic Christianity, juxtaposed with well-thought-out arguments for the new science, seems to reflect a similar unwillingness to discard the old, which must somehow be accommodated with the new. Esmonin has remarked that 'never abolish' was almost the administrative maxim of the old regime.\textsuperscript{31}

A good example of the problems involved in actually abolishing a custom, even one long overtaken by social change, is the case of the Arles nobility: split into two groups, old and new, with distinct privileges and electoral rights. A modern historian can discover no historical difference in the origins of each group, with old and recent families in both; and to a contemporary all the so-called nobility of Arles were the sons and grandsons of rich farmers.\textsuperscript{32} Nonetheless, disputes arose because the 'old' nobility had the right to elect the first consul and 'new' nobility only his subordinate second. Impatient with the riots to which this division gave rise, De Valois used his extraordinary powers as governor to abolish it, nominating the consuls himself. Arles protested on the
grounds that its urban constitution was four centuries old and 'la vieillesse et la durée des choses soit un argument invincible de leur justice'. When the government wanted to introduce a new tax system in 1630, uniform with the rest of France, or when De Valois brought in a Court of Requests, to handle a back-log of cases outstanding before the parlement, in 1641, the appeal to privilege and tradition as an immutable source of law was the immediate tactic of interested parties.

Yet although the parlement might appeal to tradition in its own defence, it had shown a revolutionary zeal in removing cases from the jurisdiction of the feudal officers of comtal days; the bailliwicks, sénéchals and juge mages; and in reducing clerical and seigneurial courts to ciphers. In his first speech as President of the Court of Requests, Gaufridi (no relation to the wizard) drew attention to these facts and made a typically grandiose comparison with the evolution of the Roman Republic into an Empire; the continuity of names concealed the break in the constitutional reality. The nub of his argument: 'All innovation becomes tradition with time' echoed the themes of mutability of human institutions in the correspondence of De Valois and Gassendi. For example, in his letter consoling De Valois for the death of his male heir, which would mean the extinction of a direct line which had ruled France for centuries, he wrote: 'Does not history warn us with examples of the cutting-off of families, blessed with numerous offspring, of whom no trace is known today? No royal line was ever longer, or more glorious than the Capetians, whose descendant you are, but how many branches now survive of that once fruitful tree?' Not only dynasties, but nations and their constitutions were in continual change.

'The King of England and his parliament, victor and vanquished, will be folded in the single party of profound oblivion. All things are threaded by turns on a long chain of vicissitudes; so that kingdoms become republics; republics, kingdoms; and anarchy presides over each transition. Sovereignty struggles to preserve its boundaries abroad, to contain threats to law and order at home, adding a bit here, losing a bit there; dividing one party and building up
another ... whether letters flourish, or barbarism supervenes, the passage of time will efface all this from memory. 135

It was by a similar switch of historical perspective that Gassendi, and later Pascal, saw themselves as the true ancients, whereas it was the sources of philosophical tradition who were 'moderns'. 36 As an Epicurean, who believed that human societies, like the visible world, were the product of evolution, Gassendi found the view that laws were grounded not in tradition but in the need to preserve property and prevent anarchy—a natural conclusion. Laws were continually adjusted to suit the kaleidoscope of social and historical change. 37 Gaufridi, a client of De Valois, found it equally natural to use the idea in his speech. The new Court of Requests had the support of Richelieu, and was registered by the hostile parlement under pressure from the royal intendants, who were backed by the threat from De Valois' regiment, if necessary. In this context Epicureanism became the ally of absolutism: administration by royal edict rather than by time-honoured customs. The dedication of Gassendi's great commentary on Epicurus to Chancellor Séguier in 1649, who was France's top lawyer and the immediate superior in charge of all Richelieu's intendants, should be viewed in this context. 38

Recent historians of Provence have failed to appreciate the ambiguities in the Provencal attitude to law; particularly on the part of the parlement. 39 Whereas the populace had the old idea that law was tradition and innovation illegal, intellectuals in the Gassendi and De Valois circle saw it as a matter of historical relativity, 'a complex heap of laws in force neither in all places nor at all times'. 40 Many members of the parlement would have agreed with this view; the last quotation was from a lecture by Gassendi which members of the parlement heard and approved. Gassendi's special interest as a theology lecturer was in law and justice, and the parlement liked what he said sufficiently to augment his official salary with a grant. A cynic might argue that
the parlement regarded law as a utility only when it was a matter of establishing themselves as supreme tribunal in Provence at the expense of existing clerical, feudal and local courts. By 1641, as Gaufridi pointed out, that struggle was over and had sunk into history. What was at stake was the defence of the parlement's jurisdiction against the intendant, the governor and the proliferation of new royal edicts; above all their fear that the Court of Requests (and the semestre into which it was transmuted in 1647) would replace the parlement as they themselves had replaced lesser tribunals. The same cynic might argue that this is why the parlement held tenaciously to the popular theory that its long tradition made it proof against criticism and the natural defender of the laws of Provence against illegal innovations. It was certainly an effective method of recruiting popular support and helped to secure the defeat of Louis de Valois, and the collapse of his legal innovations, in the Fronde of 1649-50. The Roman law tradition itself provided a convenient cloak for these ambiguities; outside the field of property and inheritance it had no clear body of principle and left much to the initiative of judges and administrators. Hence the ease with which it adapted to a multiplicity of local customs and administrative practices and its failure to exercise any effective check on the self-interest of professional judges.

Against the argument that Hobbes and Gassendi drew a direct analogy between law in science and society it has been objected that humans have a choice whether or not to obey laws, which are therefore prescriptive, whereas in nature they are descriptive. Whatever the real force of this argument it does not apply to Hobbes, Gassendi or, for that matter, Mersenne; despite their genuflexion towards choice and free-will, largely for theological reasons, they regarded the human decision-making process in purely mechanical terms. Gassendi expressed this most graphically in an extended analogy with the balance, in which 'choice' was equated
with the depression of a pan by weights. Erroneous choices were explained by the fact that just as weight gives no clue as to the real nature of what is being weighed (10 lbs of potatoes may be rotten potatoes), so we may be deceived even though we made what seemed the right choice. Free will, in Gassendi's interpretation, is merely the 'indifference' which indicates that our judgement is accurately adjusted and free to incline to one side or the other. The extension of this analogy into the law-court seems logical; and the obstacle to the comparison of law in the social and natural order disappears. In a quasi-pantheistic philosophy like that of Gassendi, in which atoms manifest a desire for freedom which, in solid objects, is restricted merely by each other's motion, the comparison with the laws governing the formation and preservation of human societies appears natural, rather than far-fetched.
FOOTNOTES

(iii) Law

1 Murray Reason and Society in the Middle Ages 1978 pp.224-333
2 M. Carlin La rénovation du droit romain dans les actes de la pratique Provençale 1964 passim
3 H. Jolowicz Historical Introduction to the Study of Roman Law 1952 pp.142-3
4 J. Noonan S.J. The Scholastic Analysis of Usury 1957 pp. 1-50
5 J. Salmon Society in Crisis: France in the 16th century 1975 pp.23-39
6 The parlement of Provence was created in 1501 and the Edict of Joinville (1325) empowered it to displace existing courts and officials. See R. Busquet Précis de l'histoire du parlement 1919 pp.11
7 R. Evans Habsburg Monarchy 1979 pp.89-90
8 Skinner Political Thought in the Sixteenth Century 1978 II pp.350-1
9 Skinner Political Thought in the Sixteenth Century 1978 II pp.350-1
10 Church Richelieu and Reason of State 1972 pp.298-300 is unable to distinguish between policy and propaganda. As is Dickmann Der Westfälischen Frieden 1965.
11 Bibliothèque Nationale 18977 f.286.
12 Miskimin Economy of Later Renaissance Europe 1977 p.70. The same system had enabled the Roman nobility to carve out immense latifundia from 100 BC - 100 AD.
13 G. Roupnel La Ville et la Campagne au 17e siècle 1922 on Burgundy Venard Bourgeois et Paysan au XVIIe siècle 1957 p.40
15 Gaufredi Mémoires etc. 1870 p.222
16 Pillorget op cit pp.523, 576 and 595: citizens were 'astonished' at the sight of judges in full legal regalia with half-pikes and pistols rallying the mob. For the bribery see Régusse Mémoires pour servir à l'histoire de la Fronde 1870 p.171.
17 Even Valébelle, a fanatical ally of the parlement admits that when the semestre replaced it there was open rejoicing at Aix (Aix Méjanes Mémoires' MS 929 f.237). He attributed this to the 'envy of the gentry' and the fact that the 'common people are like bad valets, they like any change of master.' Hailze Histoire de la Ville d'Aix IV p.456 attributed the parlement's eventual success to the fear which it inspired in the common people.
18 G.E.R. Lloyd Magic, Reason and Experience ...1979 p.84 and passim.
19 Aristotle Metaphysics 999b Aquinas Summa Theologica 1-11 q.91 Arts.
20 This point, and a number of others in this section, is made by W. J. Bouwsma 'Lawyers in Early Modern Culture' American Historical Review 1973 LXXVIII pp. 303-327.

21 Descartes Discours de la Méthode 1637 opening of seconde partie.

22 The relationship between law and empiricism is also noted by Bouwsma op cit p. 319. M. Mahoney Pierre de Fermat 1972 pp. 340-1.

23 D. Kelley Modern Historical Scholarship 1970 pp. 59-60 and 288-90 For Gassendi's utilitarianism 0.0. II p. 786.

24 J. Bodin Six Books of the Republic 1574 creates the idea of the State as 'an omnipotent impersonal power'; Skinner op cit n.1(II) p. 358 The influence of Bodin on Gassendi was considerable, but it is misleading to say, as does the Soviet Encyclopaedia (1957) art. Gassendi, that Gassendi merely restates him.

25 Seysell La grand Monarchie de France 1519 see Philosophy and the State in France N. Kechane pp. 36-8 'police' = polity of three estates as the 'corps mystique' of the kingdom, limiting the king.

26 Pascal Oeuvres ed. Du Seuil pp. 507-3, 'L'art de fronder, bouleverser les etats et d'etranxer les coutumes etablies en sondant jusque a leur source ou marquer leur defaut de justice et d'autorité ... rien ne serait juste a cette balance. Cependant le peuple préte aisément l'oreille a ces discours.' He rests the whole authority of the laws not on their justice but on popular 'imagination' which projects justice onto the laws.

27 See Archives de la Philosophie du Droit 1980 "I'Ontologie de la Loi Moderne" pp. 192-207 for a more complex analysis of the relations of law, science and philosophy of science during this period.

28 Lindberg Science in the Middle Ages 1978 p. 44 Murray Reason and Society in the Middle Ages pp. 224-333.

29 Summa Theologica I-II q. 97 a1, a3

30 G. Gusdorf La Révolution Galiléenne 1969 (II) p. 472

31 H. Methivier Siècle de Louis XIV 1966 p. 10 'La monarachie absolu ... n'est que la superposition lente de la raison d'état romaine ... aux réalités historiques des vieilles "coutumes" nationales.' n.b. superposition, nothing was abolished by law.


33 Aix Méjanes MS 775 f. 5. They added: 'De se persuader qu'on doit pas faire distinction d'ordre de noblesse serait contre la nature des choses qui abhorre l'égalité.' They contrasted 'des lois fermes et inviolables' with the 'variable et changeant' goals of those pursuing politique rather than justice.

34 Aix Méjanes 774 f. 238 and Haitze Histoire de la Ville d'Aix (IV) p. 457 'Dieu ne conduit pas toujours le monde par les mêmes règles; que les changements sont aussi fréquent en la police qu'en la nature.'

35 O. O. pp. 196-7.


37 O. O. II 795-6 an account which closely follows Hobbes Leviathan c. xiv see GASSENDI AND ABSOLUTE MONARCHY.

38 Animadversiones in Decimum Librum Diogenis Laertii 1649 In his dedication Gassendi drew a direct parallel between scientific enquiry and law: Omnia scilicet non tam ex quibusdam apparentibus circumstantiis quam ex rationibus a natura intima petitis dimetient. Quo fit, ut cum aliis, quid agatur, constet teneas ipse causam, cur quidque agatur, ac speciatim Legum vindex et custos, Legum-latoribus paria facias

39 Both Pillorget and Kettering, Judicial Politics and Urban Revolt, tend to think in terms of stereotypes: parlement = law = progress; enemies of parlement = disorder = reaction. Bouwsma op cit makes the same simplistic equations. Thus he accounts for the widespread hostility to lawyers in the period in terms of the 'scapegoat' witch-
40 0.0. III pp.207-8
41 See n.34
42 This was the theme of manifestos attacking De Valois in the Fronde
f.208. Bibliothèque Nationale 18977 'Il est malaise de déraciner
une autorité que deux siècles ont confirmé. (Actually it was not
quite a century and a half by 1649, but at a time when ordinary
people were approximate about their own age this was likely to get
get by.)
F.274 'The people may reflect that the semestre has done more
harm in a year than the parlement in two centuries and that it
is much easier to complain of old judges than to install new ones.'
43 G. Sainte Croix The Class Struggle in the Roman World 1981 pp.328-30
44 See Warrender The Political Philosophy of Hobbes 1962
45 0.0. II pp.824-5
46 0.0. I pp.335-6
47 Hobbes Leviathan Everyman p.110
(iv) Sense of Community

Pillorget has written "les communautés constituent les unités administrative et fiscale de base", so that Provence could be described as a collection of 650-700 autonomous republics of varying size.\(^1\) There was certainly a parochialism deeply rooted in the Provençal consciousness:

Pertuis aura renommée par tout l'universau
Car sa gent est en tout fort bien conditionné.

It was by no means uncommon to see Aix compared to 'Rome in valour, Athens in knowledge'.\(^2\) César de Nostredame could put to verse controversies about property qualifications for the franchise in the municipality of Salon, or the extortions of local money-lenders in an unusually bad harvest.\(^3\) Such verse, like the battery of sonnets which celebrated the rat with its tail, caught by an oyster in the cellar of the Cardinal Archbishop of Aix, was evidently savoured only by those familiar with the persons and places concerned.\(^4\) At one extreme was the parochialism of an Arles merchant who published a book questioning the earth's sphericity; at the other, the cosmopolitanism of Gassendi, who could praise his friend Peiresc for being a citizen of the world with correspondents in Europe, Africa, Asia, and the New World. Yet even he could still write to Louis de Valois: 'Allow me to exercise some old-fashioned diplomacy on behalf of Champtercier, my native village, that it may not be quartered with troops.'\(^5\) As a mid-point between these two conceptions was the poet who compared the French king to the sun and Provence to the polar region, in a sonnet of 1622, because their privation of the royal presence lasted as long as a polar night.\(^6\)

Professor Mousnier has painted a somewhat idyllic picture of such communities as 'feudal lordships, truly communities of men, associations', in which the seigneur was the communities' protection against central
government.\(^7\) This image does not fit Provence at all. Du Vair was not the only one to note the 'animositez des sujets contre leurs seigneurs; maladie fort commun en ce pays'.\(^8\) In the period from 1560-1620 many communities were successful in establishing the right to common grazing land, forest or highly profitable communal ovens or mills, by agreements negotiated with seigneurs who were themselves in need of ready cash.\(^9\) The difficulties of litigation with a peasantry, proverbial for their shrewdness, are illustrated by the example of Peiresc, and his father, who between them conducted litigation for over twenty years before reaching agreement with the inhabitants of Rians over feudal rights. The vassals, whom an otherwise moderate Peiresc described as 'canailles' and 'sediteux' living in 'mendicité', had the support of a small-town solicitor but otherwise seem to have kept matters going on their own account for thirteen years, when they acquired the support of a lord with a much smaller stake in the area to play off against Peiresc. It had to be referred to the parlement at Paris before finally reaching a settlement in 1627. Yet Peiresc's father was a councillor in the chambre des comptes, Peiresc was in the parlement and secretary to Du Vair who held high government office; if it took him so long to gain a favourable settlement what was the situation of the numerous noblesse de courte robe, with similar lawsuits but no legal strings to pull? As Pillorget tells us, such suits were 'innumerable' at this time and, if they rarely led to violence, they rarely came to a conclusion either.\(^10\) There is evidence that the Crown, through the anti-feudal tendencies already noted, fostered the development of the community as a unit of peasant proprietors as independent of feudal justice and fiscality as possible, and that the parlement deliberately dragged its feet in order to maximise the expense of litigation to the seigneur and minimize the dues extracted from the communities.\(^11\) Resentment at this situation is an important clue to the support which De Valois received from the old nobility in the creation of two new courts to replace
the parlement's jurisdiction over the communities: Requests in 1641 and the semestre in 1647.

This situation casts serious doubts on Mousnier's claims that because Frenchmen were community conscious 'any element of class consciousness', such as Porchnev introduces to explain peasant revolts before the Fronde, must be ruled out absolutely. Pillorget has quietly, but efficiently, disposed of Mousnier's main rhetorical device, by sweeping away the antithesis that a society not based on class must have been a société d'ordres. His juridical analysis in terms of a société de corps has the great merit of drawing attention to the importance of the communities in the life of ordinary people whilst permitting a more meaningful analysis of the privileged class in terms of the corporate privileges they enjoyed: parlement, cours souveraines, noblesse de courte robe, religious communities, were much more interested in defending their own corporate rights than any larger interests relating to the abstractions of class and order. Only on exceptional occasions, such as the 1590s when anti-seigneurial revolts among the peasantry were followed by radical control of key municipalities, did the privileged classes sink their differences and rally round Henri IV. But this was a solidarity of propertied classes against anarchy—not a solidarity of Ordres.

Pillorget has gone even further in undermining Mousnier's cosy feudal communities by admitting that it is impossible to probe deeply into the mysteries of Provencal municipal finance without realizing that, in certain communities at least, a fundamental conflict of interest between menu peuple and plus apparens is a constant underlying all the variables of personal conflict to which Mousnier reduces every eddy in the stream of absolutism. Naturally this is not to say that those involved at the time were necessarily aware of a class dimension. I think that the menu peuple, of whom we know little, were not; though some certainly had strong republican feelings and not just in Marseilles; as is evidenced by those artisans supporting De Valois in 1649 who were
flogged for seditious speeches. But the privileged classes themselves certainly understood the element of exploitation in each other's relationship with the menu peuple. The propaganda put out by De Valois and by his enemies was evidently intended to draw the largely neutral unprivileged classes, artisans and tax-payers, into supporting their cause. The parlement portrayed De Valois as the leader of bankrupt blood-thirsty nobles, hoping to re-impose the shackles of feudalism by devastating the estates of peasants at law over seigneurial dues, whom the parlement protected in the courts. De Valois' propagandist portrays the parlement's judges as 'shepherds turned into wolves by a new lycanthropy', lining their pockets with speculations on taxes which the people had to pay. De Valois himself wrote of the propaganda circulated during the Fronde: 'It distorts the lineaments of truth; yet truth can still be glimpsed through its features.' Gassendi certainly regarded the Fronde as a struggle for the control of the surplus created by the unprivileged between two privileged classes with conflicting views about the nature of aristocracy:

'To be sure, reverence and respect are with good reason due first of all to those of constituted dignity for their palpable excellence or beneficence. And their excellence is a function of how many benefit, and by how much, from their dignity. Since (from what has been said) it follows that dignity belongs to those who both excel and also furnish services to the public; that is, or ought to be, their constant burden to furnish services for the utility of the public which have tangible benefit to the citizens. They should administer with forethought, settle litigation, repel enemies, provide security, protect commerce, make sure there is abundance of all commodities and all things similar. And for this end their various grades, precedence and functions give them the power. For this reason to these comes the honour of holding first place in the government and the general care and utility of all is firstly to them, and next also to others according to the place which each is intended to play in public administration. It ought indeed to be those honours, the name of a just man, which Aristotle notes should be the reward or fruit of their labours. Surely that virtue in which administrators are held to excel cannot measure out its value in a cash reward? But to administer uniquely well and for the glory of conferring benefits ought to be all the end proposed. If there are some who think otherwise they are not honourable men but mercenaries and speculators; or if you prefer Aristotle's language, Tyrants.
Rulers and magistrates who are truly worthy of that honour, who care for the good of the public and the safety of the citizen are content with the honour of that; and do not throw in the search for some other reward or tangible benefit. Although it is certainly important that those in constituted dignity should be honoured, if they themselves obscure the necessary labours they undertake for the republic, then popular unrest, rather than reverence, which ought to restrain such outbreaks, is the consequence.19

It is not easy to slot this into contemporary systems of political thought and even Aristotle, though he is cited twice, does not really seem relevant. Gassendi has ignored the three estates of the traditional société d'ordres and confounded the noblesse de robe and the noblesse d'épée, muddling commerce, litigation and warfare as functions of a privileged class and ignoring the traditional precedence accorded to warfare, even in the order of his list. The clergy are, curiously, ignored altogether. Gassendi's position comes close to that of J. Stoye who has argued:

'The dominant classes however divided, were also held together by a common interest vis-à-vis the great mass of the population. They were literate and in varying degrees they all enjoyed some kind of legal privilege. The majority were unlettered and subject to the full rigour of arbitrary jurisdiction and taxation.'20

It is this remarkably modern angle on French society which Gassendi appears to be adopting in this passage, though unlike Stoye, he acknowledges the importance to administration of non-privileged citizens in areas like Provence, in subordinate but key positions in the government, such as taxation of small village communities.21

Gassendi's account squares much more closely with that of Pillorget than Mousnier and it would seem that what he has really done is to extrapolate the situation of a large municipality, with its distinction between plus apparens and menu peuple, onto a national scale. If this was indeed his intention it explains the exclusion of the clergy, since the whole raison d'être of the communities was to place the administration of urban life outside clerical control.
Clergy could neither vote nor be elected in community polls. The inter-dependence proposed between public honour and public service implies a republic of Rousseauesque dimensions rather than the gas-bag bureaucracy of contemporary French monarchy. De Valois was suspected by some of seeking to detach Provence from the Crown and restore its comtal independence; and a handful of plebeian supporters were accused of holding up the republican federations of Holland and Switzerland as model states. However difficult it may be to envisage how Gassendi planned to transform the 'ought' behind this theory into an 'is', it is clear that what he proposed would have meant a revolution in the French monarchy. The venality of office, on which the parlement and the whole administration rested, had been entrenched since the sixteenth century; the French judiciary of the ancien régime was among the most corrupt in Europe. The nobility had been divorced from their traditional functions of fighting and administration for about the same length of time; and De Valois had encountered the practical obstacles in the way of reversing that trend when persuading the nobility to sit in the new Court of Requests or the semestre.

The proposals that the privileged should take no reward but honour for public service was seriously meant; as is evidenced by the consternation which De Valois caused on refusing the usual gratuities from the communities when he became governor and, on occasion, selling some of his own properties to keep the administration going. But Gassendi omits to mention whether or not his 'constituted dignity' included rent rolls so large that profit-making from office was not necessary. He had already dismissed the communistic Utopia of Plato on the grounds that it contained no safeguard against the 'guardians' turning the system to their own material advantage; but what he appears to be proposing is a Utopia from Arthurian romance, which might be implemented in practice only by an aristocracy with broad acres actively engaged in public administration.
on the model of eighteenth-century England. It must not be forgotten that as well as being patronised by the French aristocracy Gassendi was on intimate terms with the future Duke of Newcastle. What does emerge from Gassendi's 'model' is the role of class conflict, as he saw it, in the disorders of his own time. If the privileged class, or a significant section of it, used the powers which they had been given for the benefit of the unprivileged, as an opportunity to profiteer, or increase their own wealth, the result would be civil disorder. Pillorget's accounts of unrest in Provencal towns during this period multiply examples, complicated by rivalries amongst the privileged class themselves, in which this was exactly the pattern of events. No doubt Gassendi, as a loyal supporter of De Valois, saw the events leading up to the Fronde in Provence as a direct result of the greed and dishonesty of which the parlement was accused in De Valois' propaganda. It has even been suggested that Gassendi helped write some of it himself. Perhaps the most striking feature of this passage is that it applies to corrupt administrators the scholastic concept of the tyrant; the immoral ruler whose removal by the people was not only no crime but a duty. He thereby underwrote the whole Provencal spirit of 'Vive le Roi; fuero [any unwanted group of officials or tax]; which was clean contrary to the fundamental direction of absolutism at this time.

One of the greatest single causes of violence within Provencal communities was the problem of community debts. These debts first became a serious problem in the wars of religion, when they were run up either to cope with unexpected emergencies, or by radical League regimes, as at Arles and Marseilles, who hoped that the rich would pay them off in taxation. But in the first half of the seventeenth century, the arrears of interest and what later French historians call a conjoncture; plagues, ever increasing royal taxes, deteriorating climate, quartering of troops, combined to create a problem of chronic
**BREAK-DOWN OF FEUDALISM**

1. Rising Population 1400-1660 - static resources
2. Increase in investment capital among those connected with expansion of Marseilles 1500-1600
3. Investment in community debts and their use as negotiable securities.
4. Sharp deterioration in climate 1580-1660
5. Inflation 1500-1610
6. Rising government taxation 1625-1660
7. Expense of litigation for feudal dues often exceeds their value

"the state regards its officials as an Archimedean screw..."

Archbishop Montchal

**HOW THE SCREW WAS TURNED**

- interest
- Community Debt
- Church
- Feudal Dues
- Private Creditors

largest source of private credit is members of sovereign courts and their allies

**SOCIAL CONFLICT**

- old nobility v sovereign courts
- peasants and artisans (including rich peasants)
- small merchants v sovereign courts

**STRAIN-GAUGE**

- Control of Administration and Judiciary, precedence, noble status
- litigation over feudal rights
- community debts and taxation to service them
- maladministration, corruption, franchises, tax assessments, common lands and community debt
- trade regulation, taxes, and favouritism towards merchants connected with parlement

**PROVENCE — CONFLICTS OF INTERESTS AMONG COMMUNITIES**

- Fronde in France 1648-53
- Fronde in Provence 1647-1660

**DE VALOIS FEUDAL REACTION**

He used the instruments of absolute monarchy - the army, the intendants, arbitrary powers - to build up a coalition amongst those opposed to the sovereign courts. A glance at the strain gauges above shows the lack of any real common interest among those hostile to the parlement. A glance at the diagram shows that even if the sovereign courts were successfully challenged by force their real strength lay in their monopoly of investment capital
insolvency. There were only two ways it could be resolved: by raising taxation on the community or compounding with creditors for the sale of some assets such as common land. This was a question which drove a neat wedge through Mousnier's 'classless' community. If it was a matter of paying the interest through taxation, then the wealthiest members of the community, having adjusted the franchise in their favour at the end of the religious wars, naturally favoured high indirect taxes on wine, bread and fish. In a big seaport, like Marseilles, there was a similar clash of interests between the merchants, whose interests were harmed by taxes on trade, and those citizens who derived income from property and were averse to paying debts which they saw as the responsibility of commerce.

In Gassendi's home region, Haute Provence, matters were complicated by the extraordinary cold and rains, and the importance of cattle to the economy. The sale of common land, which meant loss of firewood, building materials and grazing, could be disastrous; especially if its new owners practised over-grazing by sheep and goats, or systematic deforestation. In Gassendi's own lifetime the mountains round Digne acquired an ecology indistinguishable from north Africa.

The movement referred to earlier, in which peasant communities won de facto independence of their seigneurs by the end of the sixteenth century, was complemented in the seventeenth century by the growing burden of community debt repayment (additional to debts the peasant acquired individually) and by the alienation of communal property to creditors. Who were the beneficiaries? The councillors of the parlement, or their relatives, or known clients, seem to have had an unfailing instinct for entangling communities in loans or profiting from the farm of taxes, levied to settle debts, obtaining payment from bankrupts when other creditors got nothing, or financing sheep syndicates which needed alienated communal land to operate. The
key to success was the close partnership which developed between the councillors, the consuls in the communities, and the richer peasants, or coq de villages, often money-lenders to other peasants. When De Valois, in the 1640s made an effort to put an end to the burden of debt, the parlement openly admitted to Cardinal Mazarin that they were the largest investors in community debt and that the efforts of the royal commission to liquidate it endanger 'not only the dowries of our daughters and the religious, but the only liquid capital in Provence.'

For loans to communities had always been free of the canon law prohibition on usury. Richelieu had wished to regulate the business because it burnt a large hole in the royal pocket. When an extraordinary sum was needed in taxation the Crown would be paid a lump sum, advanced by a loan syndicate in which the parlement, assisted by outside capital, predominated. The communities would then be assigned a contribution which, as it had already been paid, took the form of a debt towards whoever advanced the money. But because the councillor never touched the capital, but merely drew the interest from the community, the taxpayers were soon putting into his pocket far more than had ever been received by the king. As in those days a debt was virtually perpetual this was a grand family investment and debts were traded, as the parlement claimed, like liquid capital.

The situation of the more traditional nobleman was that he saw control of the communities, freed from seigneurial dependence, passing next through the chicanery of the courts, into the grip of money-lenders who were fully countenanced by the law, and in many cases judges themselves. It is not difficult to see why De Valois received enthusiastic support from the old nobility, and a number of the higher clergy, for his policy of liquidating the community debt system. Nor is it hard to understand why the first act of the parlement, on recovering control of Aix from De Valois after their coup in 1649, was to seize all the
bags and papers from the intendant relating to the inquiry on indebtedness. The *Fronde* in Provence cannot be simplistically reduced to a class conflict between old nobility and middle-class lawyers who aimed at social and economic ascendancy. De Valois had support from other sectors of the population, such as the merchants and fishermen of Marseilles; or groups which resented their exclusion from urban government in places like Draguignan or Arles. But such exceptions are really only apparent, because when the situation is analysed in detail it transpires that grievances aroused by the economic and political operations of the *parlement* prompted their adherence to De Valois' party.

Gassendi belonged to a party which aspired to restore a spirit of community service to Provence and which, apparently, valued feudalism for its utility to the general public. Its political failure indicates how remote from reality Mousnier was in supposing the seigneurial community at this time to be a linchpin of social relations.
(iv) A Sense of Community

1. R. Pillorget, *Les Mouvements Insurrectionnels*, p. 43
2. Aix Méjanès 421 f. 48, 49
3. Voila notre Conseil, notre maison de ville
   Ore au plaisir de l’un or de l’autre servile
   L’un qui le veut restreindre, et l’autre l’allonger
   Recueil de Poésies 1608 p. 53
   usurers 'qui pendant au nez les chimistes vaincu
   sait la paille et le foin convertit en écus.'
4. Published as *L'Ostreomachie* Correspondants de Peiresc (XYIII), ed. T. de Larroque.
5. O. O. V pp. 287a & 343b 'Socratis instar, non unus regionis sed
   Universi totius civen.' VI p. 298b and again p. 299a.
6. Chasteuil Gallup *Discours des Arcs de Triomphe* 1624 p. 55
7. R. Mousnier, *Labbatut, Durand Problèmes de Stratification Sociale*
   and *Fureurs Paysannes* 1967 pp. 35-41 1964 pp. 25-43
8. quoted in op cit n. 1 p. 71
9. Aix Méjanès 829 f. 67 seq. lists seigneurial rights alienated for cash
   1540-70; that is, at a time of high inflation. For example,
   Peiresc's grand-uncle alienated 'la maison, la terre gaste (common
   land) des bâtiments, une four pour faire des tuiles, un horloge,
   un moulin', in 1559 for an annual pension which was worth one-fifth
   of its value by 1600. Not until 1627 could Peiresc get this
   supplemented with a rent in kind. See also T. Sclafert *Cultures*
   en Haute Provence 1959 p. 122.
10. op cit. n. 1 pp. 247-50 and 243
    and complaints of Provençal nobility. MS 607 f. 261-9. MS 622 f. 3-27.
    (translation) has been heavily shelled because of a rather simplistic Marxism.
13. op cit. n. 1 p. 466
14. The existence of anti-seigneurial revolts, incompatible with
    Mousnier's thesis, is well attested; e. g. in 1578-9 Nostradamus
    *Histoire de Provence* 1614 pp. 814-32 and the 'holy hermit' in the
    plague of 1580 who cured the poor and poisoned the rich. Also
    op cit. n. 1 p. 5 notes that they were frequent from 1588-96.
    J. Salmon *Society in Crisis* ... 1975 pp. 138-9
15. op cit. n. 1 pp. 450-459
16. op cit. p. 463 Pillorget argues that although classes existed
    'objectively', they had no 'subjective' existence: 'On ne peut
    parler de classe que dans la mesure ou il existe conscience de
    classe.' This contradicts the view of F. Engels *Socialism Utopian
    and Scientific* 1892 that although a working-class consciousness did
    not emerge until the 1830s 'it was then seen that all past history,
    with the exception of its primitive stages, was the history of the
    class struggle.'
17. Bibliothèque Nationale MS 18977 f. 290, f. 429; the example of
    England (Charles I executed in 1648) seems to have inflamed their
    imagination.
18 'Remonstrance du Parlement a M. le Comte d'Alet, 'La Justification des Armes de M. le Comte D'Alet contre le Parlement', copies in Bibliothèque Nationale, Méjanes, Cambridge, E.N. MS 18977 f.254, f.293. The reference to lyconthrapy recalls Gassendi, p.6. II Communications, 0.0. VI p.388b.

19 0.0. II p.813 'quod illi digni habitat sunt, qui et praesent et publico quodam munere fungestur; illos et evehit et debeat munere fungir in publicam utilitatem, seu quod idem est beneficiendo civibus; dum nempe eos regunt ipsis provident, litetis dirimunt, hostes depellent securitatem pariunt, commercia tuentur, rerum abundantia procurant et quae consimilia his sunt idque pro variis gradibus, quibus praesae et fungir possunt. Quare illis imprimis est honor habendus qui in republica principatam tenent quocumque est adeo cura generalis et utilitate omnium destinata ac deinde caeteris quoque prout quisquam partem administrationis publicae demandatam tenent. Debetur vero illis honos eo justitiae titulo quo ut Aristoteles adnotat haec est illis merces seu praemium laborum. Videbunt cum ob virtutes, quae tenent praeclara, esse praefecti intelliguntur: non pecunia sana aut quidquam aestimabile esse illorum merces potest: sed quae illis unica bene administrandi; ac benefacienda gloria est pro sco proposita debit. Quippe si quid aliud requirant non virti honorabiles sed mercanarii seu quaetuos a sunt; vel si illud mavis quod ob Aristotele dicitur Tyranni; itaque illi seu principes, seu Magistratus quilibet sunt revera honorem digni qui nati bono publico salutis civilium ita studiun ut upso honorre contenti sint neque velit posse sibi obicii frustra honorem a se requiri si mercedem aliam quamqum, tulerint ob compensationem quae ait unde fit facta quanquam, utcumque sit interest ut qui in dignitate constituti sunt honorentur; cum nisi fiat tum non sint, qui laboros susciper pro Republica necessarios velit; tum perturbatio quam reverentia sola cohibet, sit consequetura.

20 J. Stoye Europe Unfolding (Fontana) p. 85 on France

21 This is what he means when he says 'to these [of constituted dignity] comes the honour of holding first place in the government ... and next also to others [non-privileged] according to the place each plays in administration.'

22 Op cit n.1 p.53

23 'It was not without reason that some pamphlets of that time said he had planned to set himself up as Comte de Provence': Aix Méjanes 43 f.343. Valebelle was one of De Valois' bitterest opponents, 'but in a letter to Gassendi De Valois himself incautiously wrote: 'Oh for the time of the old counts [of Provence], when a man could think freely and follow the muses in everything!' 0.0. VI p.375 loc cit n.17

24 See D. Bitton French nobility in Crisis 1540-1640, 1969 passim Gassendi's argument closely resembles the attacks on the venality of office made by the nobility in 1614, 1651 and 1658-9, not just in Provence but generally.

25 H. Bouche La Chorégraphie de Provence 1674 (2) p.912 Cheruil ed. Lettres de Mazarin (III) 1883 p.726
26 According to J. Labbatut Les Ducs etPairs de France 1972 De Valois' income in 1651, as Duc d'Angoulême was 200,000 livres on estates with a capital value of 6 million livres (£500,000 in contemporary England) which put him well above the richest English peers.

27 0.0. II-755-6

28 Aubray Letters (II) p.602 'The Lord Marquis of Newcastle was a great patron to Dr. Gassendi ... a frequent guest at his table.'

29 'Probi gemunt, improbi laetantur, paupere res expetunt turbidas, divitesque timent ... plebs ad extrema redacta bellum, ut malorum ultimum prospicit.' 0.0. VI 369a. De Valois' assessment of the state of Paris in February 1652: 'The poor have hopes ... the rich tremble' is closer to Porchnev's economic than to Mousnier's political interpretation.

30 G. Hess Pierre Gassendi der Franzosiche Spethumanismus 1939 p.64 suggests that he wrote the Discours des bons Gouverneurs Paris 1645 by the pseudonymous F. Andrea, Provencal, in which Valois' policy was vindicated.

31 Op cit n.1 p.169 according to Pillorget it was the great single cause of violent conflict between menu peuple and plus apparens. See Bibliotheque Nationale MS fr. 18976 f.129, f.149, f.347, f.357 for attempts by De Valois' intendants to regulate the problem. According to Bouche op cit n.25 II p.920 the problem was insoluble because 'ce qui fut agréable et profitable aux uns' was the opposite for others.

32 The primacy of the debts in Valebelle's struggle with De Valois for control of the municipality of Marseilles is clear from his 'Mémoires'; Aix Mejanes 54 R f.288-291, f.305-8 Valebelle wished the merchants and poor consumers to pay. De Valois favoured a tax on property owners as a whole. Op cit n.1pp.207-10 and 553-62

33 T. Scalféf Cultures en Haute-Provence 1959 pp. 1 and 131

34 Op cit p.126: the community of Thorace Haute lost its common land in 1639 to its principal creditor—the André family. André was the councillor in the parlement who, in 1649-50, persuaded Mazarin to recall De Valois as governor.

35 The third estate in Provence protested in 1614 that it should be illegal for councillors to lend to communities, for they soon turned from creditor to master, op cit n.1, p.111: Aix Mejanes MS 607 f.384-6 the second estate (nobles) that the other creditors were bankrupted by lawsuits, 'the ruin of several houses'. Op cit n.33 p.175 big sheep syndicates, with the connivance of some consuls, drove out small local graziers in Haute Provence in the first half of the seventeenth century. The enforced sale of community land was crucial to their success. There was a natural alliance between the Arles' graziers and the parlement which winked at illegal disafforestation etc. Champigny, the intendant charged with inquiring into the debts in 1645, wrote to Chancellor Séguler: 'The power and the credit which the officers of the compagnies souveraines of this province, especially the chambre des comptes and the parlement, have been used to exercise their authority in contracting various debts on the communities, not only for themselves but also for friends and relatives, using every possible artifice to preserve to this moment the usurious and illicit advantages which they extract from them; including the intimidation of local officials and certain communities.' Lublinskaya Lettres et Mémoires a Chancellier Séguler 1966 pp.232-3 It was not the principle of lending money Champigny was objecting to; he was himself a creditor, including 1,000 livres lent to Gassendi in 1649; but the usurious gains and gangster tactics employed to protect them.
In 1637, the parlement voted the king 240,000 livres to raise a loan to pay the tax. It assigns a portion of the repayment to the communities of Provence. It declares that repayment of interest on these loans takes precedence over any other creditor of communities. The king thanks the parlement for the money.

It is a measure of the French monarchy's dependence on the goodwill of this investing class that this abuse, frequently criticized, remained endemic. See N. Temple 'Control and Exploitation of French towns during the ancien regime' History II (1966).

R. Baehrel Une Croissance; La Basse Provence ... 1961 p.329 estimates the capital of the debts up to 15 x the town's annual tax bill.

Gassendi's support was not purely idealistic. The chapter of Digne was a substantial feudal landlord and it benefited directly from De Valois' policy. See GASSENDI AND THE CHURCH.
PREVENCE : MENTALITIES

(v) Precedence and Police

'Take but degree away, untune that string
and hark what discord follows.'

Shakespeare's lines, beloved of historians of ideas, do not find an
echo in poetry and drama across the channel; perhaps because in France
precedence was much more publicly regulated, and therefore more fiercely
contested, than in England. Carew, the English ambassador in the 1600s
noted the keenness of Frenchmen in trade to buy public office for them-
selves or their children, 'because officers' wives go before merchants' wives'.

Loyseau's popular *Traitez des Offices*, published in 1610,
opens with a traditional parallel between the order of nature and the
principle of authority in human societies. It describes French society
in the traditional hierarchy of Orders: clergy, nobility and third
estate. But behind this conservative facade lurked a revolutionary
intent, for he was not writing a *traitez des ordres*; his primary
interest lay with the royal officers, theoretically still members of the
third estate and therefore subordinate to the first and second in the
relationship, so the nobility claimed during the States General of 1614,
of master and servant. They wanted the representatives of the third
estate, who were all officers, to appear before them bare-headed and
kneeling. Loyseau's treatise on offices argued that, whilst deferring
to the very highest nobility, office holders in the *parlements* had
automatic right of precedence over ordinary noblemen. The effect of
this apparently innocuous claim, which the *parlement*, since they
controlled the courts, were in a position to enforce, was not fully
evident till the end of the seventeenth century. It drove a wedge
between the higher (or court nobility) and the provincial gentry and
prepared the way for the ennoblement of the bureaucracy; a tendency
cemented after 1660 by inter-marriage between the robe and the higher nobility and the isolation and decline of the provincial gentry. (hobereaux). ⁴

The effects of this may be noted in Provence. Noble families like the de Sade, which had been loyal supporters of De Valois and fierce enemies of the parlement in the 1640s, survived only by marrying into the families of their erstwhile enemies. Those who lacked the flexibility to do this sank, as Arthur Young noted, below the level of English yeoman, farming what land remained to them like peasants. ⁵ In 1600 no one could have foreseen this outcome, but I think that an awareness of it helps us to be more sympathetic to the fierceness with which apparently trivial matters of precedence were contested, and more understanding of the violent and vacillating behaviour of the French nobility during the wars of religion and the Fronde. This dramatic social mobility helps explain why, in the first half of the seventeenth century in France, degree was a source of discord, rather than the reverse. Cardinal Richelieu, whose uncle was killed in a duel defending a front pew in a church to which his resources no longer entitled him, laboured to check the spiralling of violence marked by duels, mostly for points of honour, which thinned the ranks of nobles and gentry. ⁶ Shrewd enough to realise that previous governments had promoted this situation by turning the administrative class into a venal and hereditary 'estate within the estates', he plotted in vain to end the venality and inheritance of office. The power of the office-holders was too formidable to be challenged with success, as the revolt sponsored by the parlement in Provence in 1630 demonstrated. ⁷ But Richelieu, unlike Mazarin, was sincerely aware of the plight of rural nobility which, unlike his own, had not married into a wealthy office-holding family. Intendant Champigny, De Valois' right-hand man in Provence, worked consistently to vindicate the rights of the nobility, and others, against the
encroachments of the parlement. He was a cousin of Richelieu, as was Francois Luillier, councillor in the Metz parlement and one of Gassendi's oldest Parisian friends. Another stereotype of the French nobility was their natural lawlessness. But, in Provence at any rate, it was their restraint, or perhaps helplessness, before the parlement's encroachments which was remarkable. The brief period when they engaged in organized violence, during the Fronde, must have seemed to them entirely legitimate, since they were obeying the orders of a royal governor who had to cope with a rebellion by the parlement. It was only when Mazarin cunningly changed sides, backing the parlement and recalling the governor, that somewhat to their bewilderment they found themselves rebels. It was the parlement which showed itself far more contentious than the old nobility in fomenting quarrels for precedence, mainly among themselves and with other royal officers. Often these had a sound political logic, as when they obstructed the business of the rival Court of Requests, which De Valois had created to take over important areas of their old jurisdiction, or when it involved the intendants or the humiliation of the clergy. But—and often the same pattern is repeated in many of the struggles to control municipal office—individuals whose families and supporters were closely related to each other and with the parlement engaged in fierce rivalry over place. Much of this, Pillorget has suggested, can be explained by recent studies of the role of aggression in animals. 'I acquitted myself well in my first dispute for place', wrote Councillor Regusse, 'the weight of our voice in future deliberations [in the parlement] is often measured by our firmness in these encounters. Sometimes these quarrels were resolved by duelling, which, though strictly illegal, was one way of asserting aristocracy among the sons of magistrates with middle-class origins. But there were also bitter divisions, such as that provoked when two presidents both wore the red robe of first
president, in 1630, or in the St. Valentine's Day rising of 1659. These led to major riots, terminating with imprisonment or exile for certain councillors. Yet the families always kept the hereditary post in such cases for the next-of-kin. Levi Strauss has argued that in tribes where inter-marriage between cousins is frequent, 'sham battles' are organized to pave the way for reconciliation and further inter-marriage as a means of countering the fear of incest provoked by excessive endogamy. Since we are dealing with about 200 families who for a century and a half had systematically inter-married to protect their position against outsiders, this seems a more likely explanation than Pillorget's.

Outsiders were not equals and were therefore unworthy of a duel. Malherbe's son, whose father, though a poet patronised by the king, was a petit bourgeois without fortune, was regarded as the offspring of a mesalliance, and not treated as an equal by the children of other councillors in the parlement. His murderers, like those of Philip Gueydon, who aspired to be a councillor in De Valois' semestre, were never brought to justice. De Valebelle, a wealthy Marseilles merchant who was Lord Lieutenant of the Admiralty and whose brother was a councillor, evidently regarded such murders as legitimate executions.

'C'estait un miserable bourgeois sorti de la lie du peuple dont le pere portait son petit panier de mercerie de maison. Ce sang impur bouillant d'ambition et de rage peut il passer pour innocent?'

Gueydon's crime was merely to have sought to skip a couple of rungs in the ladder which most of the existing councillors' grandparents had scaled. Gassendi's nephew, allowed to buy a councillorship in the 1670s, had two poor peasants as his maternal grandparents; but the prudent marriage of Gassendi's sister, and the distinction of his uncle whose name he assumed, conferred legitimacy.

The tendency of public precedence to provoke disorder, rather than order, was most evident in solemn ceremonies. Malherbe wrote to
Peiresc that Henri IV's magnificent state funeral had been reduced to farce as scuffles broke out about the order of ranks. When the next king died, in 1643, the traditional ceremony was omitted, supposedly to save the expense, and much medieval symbolism limiting the authority of the sovereign conveniently disappeared with it.\textsuperscript{17} Even in the king's council chamber, nobles did not hesitate to argue over precedence, defying the king himself, as the Duc D'Epernon did in 1617, forcing Du Vair, as garde des sceaux, to resign by his behaviour.\textsuperscript{18} Richelieu put a stop to this by claiming precedence of all, as Cardinal, and excluding the nobility from council; a solution which would have been unthinkable in the Middle Ages. In Provence it was commonplace for important ceremonies to be held up for several hours over such disputes, until heavy rain or nightfall caused both sides to break off. It is interesting to note that the wizards who attended Gaufridi's sabbath observed an order of precedence; Father Yvan, exorcising a peculiarly intransigent poltergeist who had defied all his skill, suddenly lost patience and snapped: 'For all your tricks, you're but a sprite of the very lowest rank, and from the back-end-choir.' After a horrible shriek and pausing only to hurl a breviary at the priest's nose, it withdrew.\textsuperscript{19} Evidently demons were as susceptible as mortals on such matters. But then, according to Aquinas, the devil himself fell because of a dispute over precedence.\textsuperscript{20}

The official reason for the 'Ku Klux Klan' cagoules on the confréries of penitents was to avoid unseemly squabbles during their numerous public processions. The aim of such organisations was to give charitable relief to their members, the rich helping the poor, but in practice they became powerful instruments for exerting clientage outside the hierarchical structure of royal government or feudalism. The parlement were influential in the black and white penitents, whereas the blue were closely identified with De Valois. The existence of the confraternities
helps to explain why the *parlement* found it easy to relate to wealthy peasants and get crowd support, even when there was no great popularity for its policies. Despite their medieval appearance, mocked by Voltaire, the penitent organisations by the eighteenth century were heavily infiltrated by freemasonry; as such they were essentially hostile to the hierarchical world-order and helped to prepare the path for Provence's vigorous response to the revolution. The Knights of Malta, a largely lay organisation, were keen to recruit wealthy members in Provence, and counted many members among the *parlement* class. They too eventually became associated with masonry. The knights were not above mafia-style murders of those who crossed their path, such as the artist Caravaggio; and in Provence the penitent's cowl provided a convenient disguise for a public figure anxious to carry out an 'execution' in person.

Provence kept the festivals of folly, banned by the more prudent magistrates in the north where the traditional lampooning of the clergy was now seen as Protestant propaganda. The fête Dieu at Aix was, as De Valois indignantly described it, a Saturnalia; the mockery of authority, whether noble or clerical, was its speciality. Most towns had something similar, on a smaller scale; at Antibes the Franciscans allowed their church to be taken over by the common people. They would sit in the choir stalls, wear the vestments back-to-front and read books upside-down through spectacles stuck with orange peel, reciting the office with squeals and grunts like farmyard animals. The student fraternities at Avignon and Aix, into which Gassendi was initiated, conserved these old ceremonies which the rest of France had abolished. When society had been based on an unquestioned hierarchy, such inversions were a harmless release for popular frustrations. By giving a mirror image of social order they tended to reinforce it. But it is easy to see why De Valois and his entourage felt that such excesses were dangerous at a time when hierarchies were no longer accepted, but were a matter for
daily dispute among the ruling class; which was itself now deeply divided.

De Valois' own attitude to ceremonial is interesting; early in his career he seems to have been rather conservative, offering a traditional cavalry duel to his opponent, the Spanish commander Piccolomini, in the middle of a pitched battle. Such an attitude was rather archaic, in an age of warfare at a distance, and indeed the Spaniard bearing the message accepting the duel was killed in the cross-fire. His family banker, Tallemont des Reaux, records that as a young man Louis was extremely sensitive about the fact that, because of his father's illegitimacy, his right to the full honours due to princes of the blood might be disputed. But from being hypersensitive in the 1620s he had become, by the 1640s, according to the historian of Aix, 'very circumspect' about asserting his rights. So much so that his wife and some of his supporters felt he was too easy-going. When the Archbishop of Aix refused to incense him before the rest of the congregation, as was his right as a prince, he merely declined to attend any more high masses in the cathedral. A lackey of one of the councillors refused to take off his cap to him, and his suite then riddled the man with bullets; but De Valois intervened to save his life and had him attended by his personal physician. This was not the style which Provencals had come to expect from their governors; his predecessor had been sent to the Bastille for striking the Archbishop with his cane after a quarrel over seniority.

'These ceremonies of honour when the sap has gone out of them are like bark on a dead tree. They conceal but have no function, for all wish to rise and none to decline. If we all reach the point of seeing everything from the standpoint of these trappings, which have such power to swell, these courtly divisions will generate an evil which cannot be avoided.'

So De Valois wrote to Gassendi on the contentiousness of the hapless Queen Henrietta of England, trying to maintain herself as a ruling monarch in exile. But the lesson was evidently one which, within the limits of what was due to his public position, he strove to apply to
himself.

It seems likely that the change in De Valois' attitude, which came close to reversing Shakespeare's Ulysses' speech, was his relationship with Mersenne and Gassendi, from the 1630s, and his interest in the new science in general. Haitze, whose father had been one of De Valois' officers, observed sarcastically of the Archbishop, Michel Mazarin, who had refused to incense him:

'The public marvelled that the Archbishop, who had once been a monk, was so attentive to ceremonial and so touchy about his rights. But the thinking sort realised that he had been trained as a schoolman and were not surprised that he carried formalism to such extremes.'

Mousnier has pointed out that a connexion between Aristotelian scholasticism, and the concept of a society based on hierarchical orders, makes sense in both social and intellectual terms. There was no sharp transition from a medieval to a modern state in 1789 but rather a piecemeal erosion of conservative attitudes under such influences as Stoicism, humanism and later Cartesianism. To this picture can be added Epicureanism and atomism, and Gassendi's influence should not be underrated because it was largely confined to specific social groups, such as doctors, administrators and the higher nobility. Apart from the clergy, it was in these groups that the obsession with hierarchy and ceremonial struck deepest.

The rejection of social ambition and the display of wealth, which in Gassendist psychology were twin components of emulation, was central to Epicureanism. 'Do we find horses disputing for pre-eminence and dignity, even in a royal stable?' asked Gassendi. One of the most famous passages in Lucretius, beginning 'Suave mari magno ... ' contrasts the *templa serena* of science with the shipwreck of those outside it struggling for power, possession and place:

'passimque videre arrare atque viam palantis quaeerere vitae certare ingenio, contendere nobiliate.'
Gassendi's friend Peiresc, though a magistrate exposed to many temptations of self-advancement, attempted to regulate his public life as far as possible on the lines of the Epicurean spectator. J.J. Bouchard noted that the councillors liked to appear like little kings in public, surrounded by crowds of litigants and clients, and that the most eminent had the largest train. Peiresc, on the other hand, rebuffed any who approached him. This agrees with Gassendi's statement that he would use his influence only 'for friends and especially men of letters'; and it is a comment on the legal system that such restrained string-pulling was regarded as the most sterling probity. Peiresc had few illusions about his fellow magistrates, whose motto, so he claimed, was 'De pane lucrando, de faire leurs affaires et non pas servir la publique'. Gassendi's eulogy of Peiresc's economic rectitude is also an implied criticism of his less scrupulous colleagues:

'I could also say, with the poet, "Quaesivit nomem, quaserat avarus opes." For he neither diminished nor increased his patrimony ... following those who seek wealth as a protection against hunger, thirst, cold; or to provide a mere sufficiency for nature but not those eager to transcend the splendour of the age, leaving behind them a monument to broadcast their fame after death; or those who strive to establish a wealthy family, deluding themselves that their line is not heading for the silent end of other mortals.'

The success of members of the parlement in founding new families can be gauged from their preponderance in Maynier's Histoire de la Noblesse de Provence published in 1719. He himself comments wryly: 'When offices were put up for sale at first the old nobility disdained to buy. They regretted this decision too late. Justice was the key which opened every door.'

But it was not merely Epicureanism, but the scientific attitude itself, which was hostile to the hierarchical principle. 'Mieux une incivilité envers un gentilhomme ... que de lacher ma prise', wrote Peiresc, unwilling to abandon a crucial phase of an experiment for a social call by a nobleman. De Valois, having learnt Greek, Hebrew
and mathematics, thought to induce cowardice and pedantry in their votaries, and yet be acknowledged as a first-class cavalry officer and fit company in the best salons, helped to modify accepted notions. It was no mean feat, for a man of his bulk, to climb 800 metres up from Toulon harbour to help test the phenomenon of air-pressure, in company with Bernier and Gassendi, who were both peasants' sons. In some ways the first half of the century was more 'advanced' than the second, in that the manipulation of erudite books and scientific instruments, the contact with raw data, was not thought of as degrading by noblemen like Peiresc or De Valois; whereas after 1666 it was thought more polite to leave such details to the Royal Academies.

Peiresc's willingness to learn the moral lesson of restraining his temper for contention, after witnessing the struggle of a louse and a flea for place on the slide of his microscope, has its farcical side. But in the context of Gassendist anthropology, in which man was merely another animal with rather less regulated instincts, it reflects the absurdity of squabbling for precedence in an infinite universe. Gassendi's insistence on the infinity below the level of the microscope, and beyond the level of known telescopes, was animated by his conviction, sketched faintly for theological reasons, that here was a plurality of worlds with unknown beings spatch-cocked like Chinese boxes. It was Galileo who pointed out the lesson on logical paradoxes, involving the comparison of infinite quantities, that to infinite relations the rule that things must be either greater or lesser or equal no longer applied. Gassendi went further, asserting different types of infinity; for example, the infinity of space was not the same, though parallel, to the infinity of time. Both were different from the infinity of points postulated by geometers in any straight line, which was a logical fiction; whereas time and space were real infinities. The social relevance of this metaphysics is evident from Gassendi's dismissal of the categories left/right
up/down, as being subjective projections of the human body onto infinite space, as opposed to the objectivity of space itself. When Gassendi wished to illustrate that lord/serf was an accidental relationship, he compared it to up/down, left/right in space. These categories were the basis of place in banquets, churches or processions. Gassendi's concept of the temporal instant eluded the Aristotelian division of before/after, being a 'flow' rather than a cut in a static line; and, as we have seen, it was the nature of time, rather than the existence of a future life, on which Gassendi based his condemnation of the urge for dynastic immortality.

These ideological resonances were understood, later in the century, in very different ways by Fontenelle and Leibniz. For Fontenelle the whole debate about geocentrism versus heliocentrism was simply a projection into academic life of the wrangling for precedence which had characterised social and diplomatic rivalries of the age. The difference was, he pointed out, that for two diplomats to argue over precedence in a room was reasonable, but for two planets in an infinite universe absurd. He added that the psychology which caused men to quarrel about precedence was closely related to the instinct which put the earth in the centre in the first case. Gassendi did not say anything as radical as this, but there is a marked contrast between his reiteration of Kepler's correspondence between God/Christ/and the Holy Spirit and sphere of fixed stars/sun/and the aether, in his inaugural lecture at the College Royal in 1645; and the absence of this comparison from any of his formal works. Indeed, in the Syntagma, which is in many ways a conservative work, he even went so far as to dismiss the neo-platonic motto about God's being 'a sphere whose centre is everywhere and whose circumference nowhere' as part of a tradition of 'rotund Deities' which made no sense in a space without limit. Leibniz, who attacked Newtonian space—a theological version of Gassendi's—ironically borrowed
another Gassendist principle, the 'identity of indiscernibles' to support his argument that space was relative and ideal, rather than absolute because each part of it could be mapped into every other. Leibniz preferred to picture it as a certain order wherein the mind conceives the application of certain relations: 'In like manner the mind could fancy itself made up of genealogical lines whose bigness would consist only in the number of generations, wherein every person would have his place.' Leibniz, as genealogist of the Duke of Hanover, was not prepared to oppose to Newton the hierarchical notions of place, still held by the Aristotelian Jesuit philosophers of Austria-Hungary, but saw the opportunity to smuggle them back in under the guise of relativity.

The contests over precedence of the early modern period, which had a violent character distinguishing them from those of the Middle Ages, posed both a threat to public order and a challenge to the general belief in hierarchy. In the Rome of Urban VIII it was said that an argument over etiquette generated more controversy than a parricide. Urban himself went to war over a matter of precedence, in 1642, making nonsense of his life-long claim to negotiate peace between France and Spain, Protestants and Catholics. Peiresc showed a particular concern to eliminate this scourge from public life, and was often in demand to mediate an honourable settlement of such conflicts. He was also careful to note down the order of every ceremony he witnessed, so that he could use the precedence thus gleaned to settle future disputes. He passed on his material to the Huguenot, Theodore Godefroi, whose monumental treatise on ceremonial Peiresc helped to finance. In the preface Godefroi hoped that 'it would prevent the great inconveniences which arise from disputes about precedence and prerogative' and end 'the disorder and confusion' all too common in public ceremonies. To hard pressed administrators like De Valois — trying to settle riots provoked by such
matters as the second consul of Arles walking on the right, instead of the left, of the first consul—precedence posed a serious problem of police. The term 'police', and its evolution in meaning during this period, suggests one possible explanation for contemporary uncertainty. In the sixteenth century it meant the right ordering of the body politic, in Church or State, the maintenance of traditional hierarchies. But by the seventeenth century the Aix parlement was using it to mean simply regulations enforced by the state on those under its authority. Aix had a bureau de police, concerned not with giving each his rights, but purely utilitarian functions such as town planning, street cleansing, organising the watch. The parlement claimed that the 'police' of the Church, every aspect of its activities which impinged on public order—from ceremonial to reform of convents—was subject to its control. A good example of how this new attitude at first disguised itself in traditional language is the parlement's edict forbidding the Church to excommunicate royal officers towards the end of the religious war:

'Qu'entre les choses naturelles il y a un tel ordre, que l'une dépend de l'autre et que pour éviter confusion les inférieurs sont sujet aux supérieurs.'

The language is that of the great chain of being; but the sense is to remove morality from politics and subordinate the Church to the State. By 1660 the confusion was less marked; 'police' lost its associations with the body politic and became purely repressive. The authority of the parlement became identified with the instruments of execution and torture on permanent display at Aix.

A key component in this evolution was the administrative and judicial families themselves, new arrivals in the 1600s and therefore keen to insist on precedence as a means of advertising their superiority in communities small enough to fill in the blanks in their new genealogies. By the eighteenth century this was no longer necessary. They had become the aristocracy. One of their number, leafing through his
family papers could marvel that his immediate ancestors had become so excited over such bagatelles. 58
(v) Precedence and Police

1 Sir George Carew 'A Relation of the State of France' ed. T. Birch, 1749 pp.468-9
2 R. Mousnier Fureurs Paysannes 1967 pp.18-25 and XVIIIe siécle 25 1955 p.11
3 Bibliothéque Nationale MS3 5714 f.54, the nobility complained of having lost their courts and being left only an 'empty precedence' (1588). By 1614 they were complaining of loss of precedence; op cit f.85
4 J. Labbatut Les Ducs et Pairs de France pp.305-24
5 One clue to De Sade's sadism is the frustration of a ruling class which had been displaced. Compare the vengeance which De Valois and his army took on the peasantry after their defeat by the parlement in 1649.
Fr. Yvan wrote to urge restraint: 'He mon bon seigneur, que faites vous? Cela n'est pas Chrétien; dans cette vengeance il y a toutes sortes d'abominations, déflorements de vierge, des sacrilèges dans les églises, ils tourmentent et l'ont des pauvres innocents ... Quel honneur y-a-t-il pour un cavalier noble de s'amuser à combattre.... des villages?' Yet according to the same letter De Valois had been a man who once spoke of the sufferings of the poor with tears in his eyes. Lettres Spirituelles du Père Yvan pp.99-105 ed. Goudon
6 D. O'Connell Richelieu 1968 p.75
7 R. Briggs Early Modern France 1977 pp.100-3
8 For these relationships see R. Bonney Political Change in France under Richelieu and Mazarin 1978 under Bochart de Chamigny, and Pintard Libertinage Erudit 1943
9 See note 5
10 Pillorget Mouvements Insurrectionnels pp.141-2 cites the work of Storr and Lorenz
11 Regussd Memoires Pour Servir à l'histoire de Provence 1878 p.10
12 Carpentras MS 543 f.10 "L'origine de tous nos malheurs ... les conseillers de Pertuis portèrent leur président à prendre la robe rouge laquelle n'appartient qu'au premier président ... ce qui causa beaucoup de désordres."
Bibliothèque Nationale MS 24166 f.336 on 1659
13 C. Levi Strauss Structures Elémentaires de la Parenté 1949 pp.87-106
He postulates a tension between the need to interbreed to survive and the desire to resolve the clan into nuclear components, which is resolved by 'sham battles'. And it is remarkable how close the connexions by marriage often were between conflicting parties. In 1649 one councillor sent his son into battle with the words: 'Bring me back the head of your uncle'. He was one of the small group of councillors supporting De Valois. But in the 'battle' which followed there was little real bloodshed.
14 On Malherbe's son Un frère de Richelieu Inconnu M. Deloche 1935 pp.151-2 op cit n.10 pp.576-81 Gueydon's murderers could not be traced even though De Valois had the parlement suspended and replaced by his semestre.
15 Aix Méjanes MS 43 f.347
16 Gassendi paid for his education and legal studies; and a legacy to his sister went towards the purchase price.
Bibliothèque Nationale MS fr. 12270 f.36
17 Fromilhague Vie de Malherbe 1954 notes that his letters seem obsessed with etiquette and precedence at this period.
18 Bibliothèque Nationale MS 2758 f.136
19 A. Brémont Provence Mystique 1910 p.300
20 Aquinas *Summa Theologicae* I Q LXIII Art VII Fuit enim daemonum peccatum superbia ... quae fuit maior in superioribus.

21 M. Agulhon *Penitents et franc Macons de L'Ancienne Provence* 1968 pp. 92, 134 and passim.

22 Provence was the richest langue of the Order and the most numerous; see article *Ordres* in M. Marion *Dictionnaire des Institutions de la France* 1968: for Caravaggio *World of Bernini* R. Wallace 1973 pp. 68-71.


24 See Le Roy Ladurie *Carnival at Romans* 1980.

25 *Bibliothèque Nationale* MS 3834 f. 68: contrary to the impression given by S. Kettering in her *Judicial Politics and Urban Revolt* 1980 p. 128 D. Valois, despite his fatness, had a distinguished military career. (cf. Porthos?) see article D'Alais in *Dictionnaire de Biographie Nationale*.

26 Tallemont des Reaux *Historiettes* 1960 *Pleiades* I p. 93

27 Haitze *Histoire de la Ville d'Aix* IV p. 425.

28 Pillorget op cit n.10 pp. 543 and 584

29 O. O. VI p. 361a

30 Op cit n.27 p. 432

31 *L'importance grandissante de l'esprit historique, le droit romain et sa philosophie de base, le stoicisme humanitaire et egalitaire ... ruinerent les bases intellectuelles des concepts d'ordre, des etats de fidelite, de l'absolutisme et preparent les progres d'une societe nouvelle fondée sur l'egalite et l'uniformite des droits.* "Revue Historique* avril-juin 1972 p. 310.

32 O. O. II p. 763a. See *Gassendi on Life and Souls*.

33 De Rerum Natura II 1-65.

34 *Bibliothèque Nationale* n.a. 4236 f. 46, f. 5.

35 O. O. V pp. 334b-5a.

36 Shortly after *Critique du Nobiliaire de Provence* was circulated, reviving the accusations of the 1600s that many parlement families descended from the 16c. conversos *Encyclopédia Judaica* 13 art Provence. It has been suggested that such accusations need not be taken seriously. But, since the only organizations in Provence from which Jews could be excluded on ethnic grounds, were the Knights of Malta and the Jesuits, it is hard to see any motive behind pure fabrication. In such a small community as Provence genealogies were still recalled rather than written down. For example, when councillor Thommasin had the clappers removed from the bells of a Toulon Dominican house, which were disturbing his sleep, the following rhyme would have been pointless if his Semitic origins were not commonly accepted: "Vous dis de n'en coupes qu'un peu Car de coupa tout l'on son atau Serez cavolu peu trop sevares Se n'en aguessoun auteur fu A vous a ben a feu votre pere." (around 1600)


38 O. O. VI p. 319a.

39 J. Labbatut *Les Ducs et Pairs de France* p. 86 claims that an analysis of noble libraries in the first half of the seventeenth century shows 7 per cent and 47 per cent of titles serious works of science and history. From 1660-1700 they were down to 6 per cent and 30 per cent.
40 0.0. VI p.33b
41 0.0. II pp.8-9, 3 and 234; the phrase 'Chinese boxes' is Cyrano de
Bergerac's.
42 Dialogue concerning Two New Sciences (Dover ed.) p.31.
43 0.0. I pp.337-340 on resolving Zeno's paradoxes I p.182A reality of
time/space.
44 De Motu Impresso a Motore Translato 1642 p.114
'Nothing in the world is either up or down unless it be referred to
the structure of some animal, especially man, so that one part, the
head is superior and another, the feet, inferior.
45 0.0. I p.220 For Gassendi 'now' was not a geometrical 'cut' but
merely the subjective boundary of human time-consciousness. The
idea of representing 'the transition from finite to infinite' as
a flowing quantity rather than as a line was probably suggested
by Galileo n.42 pp.39-40.
46 Fontanelle La Pluralité des Mondes ed. 1825 p.143
47 0.0. IV p.68 Gassendi generally ignored Kepler's mysticism and
astrol.ogy
48 0.0. I pp.190-1
49 0.0. III p.464a Gassendi gives the example of hand-prints, leaves,
'identical' twins; for Leibniz see Philosophical Writings Everyman
p.204
50 loc cit p. 222
51 Habsburg Monarchy J. W. Evans p.321 points out that Lutherans were
also strongly Aristotelian p.287. 'For all the originality and
modernity of his thought, Leibniz remained deeply indeterred to the
traditions of German humanism and devoted to the imperial heritage ... the idea and reality of Habsburg sovereignty.' p.288
52 Un frère de Richelieu Inconnu M. Deloche pp.253 and 258
Huizinga Waxing of Middle Ages chapter 2 passim
53 G. Parker Europe in Crisis 1398-1648 Fontana pp.266-7
54 T. Godefroi Ceremonial Francais Paris 1643 preface
55 Sautel Bureau de Police à Aix en Provence 1945
56 Du Puy Traitez des Libertés de l'Éklise Gallicane 1639 (II) p.49
57 M. R. Weisser Crime and Punishment in Early Modern Europe 1982
pp.100-1
58 Aix Méjanes MS 902 Hyacinthe de Moissac f.285 circa 1770
'Quels grand démèles agitèrent toute les graves magistrats d'hier
que les gens sages d'aujourd'hui traiteraient avec raison de
bagatelles.'
- You're not a believer are you? Haines asked. I mean a believer in the narrow sense of the word. Creation from nothing and miracles and a personal God.

- There's only one sense of the word, it seems to me, Stephen said.

- Yes of course, he said as they went on again. Either you believe or you don't, isn't it? Personally, I couldn't stomach that idea of a personal God. You don't stand for that I suppose?

- You behold in me, Stephen said, with grim displeasure, a horrible example of free thought.

- After all, I should think you are able to free yourself. You are your own master, it seems to me.

- I am the servant of two masters, Stephen answered, his colour rising, the imperial British State and the Holy Roman Catholic Apostolic Church.

Haines detached from his underlip some fibres of tobacco before he spoke.

- I can quite understand that, he said calmly. An Irishman must think like that I daresay. It seems history is to blame.

Gabriel Naudé Considerations Politiques sur les Coups D'États Rome 1639

Il ne faut donc que pas croupir en l'erreur de ces faibles esprits qui s'imaginent que Rome sera toujours le siège des Saint Pères et Paris celui des Roys de France.

Dr M Casaubon Of Credulity and Incredulity London 1668

'That Gassendus himself was an atheist I should really be loath to say: I hope no ... but ...'
"... J'ai connu (dit M. Vincent) un célèbre Docteur, lequel avait long-temps défendu la Foy Catholique contre les Héritiques, en la qualité de Théologal qu'il avoit tenu dans un Diocefe. La défunte Reine Marguerite l'ayant appelé auprès de soy pour sa science et pour sa piété, il fut obligé de quitter ses emplois; et comme il ne préchoyg ne carechissoit plus, il se trouva assaillly dans le repos où il estoit, d'une rude tentation contre la Foy: ce qui nous apprend en passant combien il est dangereux de se tenir dans l'oisiveté, soit du corps, soit de l'esprit: car comme une terre, quelque bonne qu'elle puisse être, si neanmoins elle est laissée quelque temps en friche, produit incontinent des chardons & des épines; aussi notre ame ne peut pas se tenir long-temps en repos & en oisiveté, qu'elle ne ressent quelques passions ou tentations qui la portent au mal. Ce Docteur donc se voyant en ce fâcheux état, s'adressa à moy pour me declarer qu'il estoit agité de tentations bien violes contre la Foy, & qu'il avoit des pensées horribles de blasphème contre Iesus-Christ, & me même de 

defespoir; jusques-là qu'il se fentoit pouillé à se précipiter par vne fenetre; & il en fut reduit en vne telle extrémité, qu'il fallut en- fin l'exempter de reciter fon Breuiaire & de célébrer la Sainte Meffe, & me mème de faire aucune prière: dautant que lors qu'il commençoit seulement à reciter le Pater, il luy sembloit voir mille spéctres qui le troubloient grandement; & son imagination estoit si deflechée, & son esprit si epuisé à force de faire des actes de defaune de ses tentations, qu'il ne pouuoit plus en produire au- p'sun. Estant donc dans ce pitoyable état, on luy conseilla cette pratique, qui estoit que toutes & quantes fois qu'il tournoyroit la main ou l'vn de ses doigts vers la ville de Rome, ou bien vers quelque Eglise, il voudroit dire par ce mouvement & par cette action, qu'il croyoit tout ce que l'Eglise Romaine croyoit. Qu'arriva-t-il après tout cela? Dieu eut enfin pitié de ce pauvre Docteur, lequel estoit tombé malade, fut en un instant delirié de toutes les tentations, le bandeau d'obscurité luy fut offé tout d'un coup de deflus les yeux de son esprit; il commença à voir toutes les vérieté de la Foy, mais avec tant de clarité qu'il luy sem- blez les sentir & les toucher au doigt; & enfin il mourut rendant à Dieu des remercimens amoureux, de ce qu'il avoit permis qu'il tombast en ces tentations pour l'en releuer auct tant d'avantage, & luy donner des sentimens si grands & si admirables des Myste- res de notre Religion.

From Abelly La Vie du Venerable Vincent de Paul III

Bishop Abelly, St. Vincent and Gassendi's last confessor (priest of St. Nicolas des Champs) were secretly members of La Compagnie du Saint Sacrement.
'We are born Catholics', wrote Montaigne, one of Gassendi's favourite writers, 'as we are born natives of Perigord.' Gassendi's birth in Haute Provence, into a pious family of small farmers and shepherds, made him a Catholic and a subject of the king of France. The villages of this region, despite their poverty and alpine isolation, were keen to finance small Latin schools and to this he owed his initial opportunity to escape from rural obscurity. The Catholic Church provided the only prospect of a non-labouring existence to a poor peasant's son without connexions. It was the local priest who drew the young lad's precocious powers as a Latin orator to the attention of a visiting bishop and gave him a chance of a broader education. Sent for training at the seminary in Digne, and later to Aix en Provence, where in 1611 he saw the execution of the priest-wizard Gaufridi for using sorcery to seduce his penitents, he went on to the University of Avignon to take a doctorate in theology in 1614. His first posts were lecturing in theology at Digne and the University of Aix but he does not seem to have found this task to his taste; in 1617 he resigned the lectureship in theology for philosophy, an unusual step since the former was generally regarded as the greater honour, and held this post until he resigned in 1622, when the Jesuits took over the College de Bourbon, as the University was known.

He was probably ordained by Bishop Turicella at Marseilles in 1616; though he considered becoming an active minister only in order to qualify for the plum ecclesiastical job as Provost of Digne Cathedral; an appointment which was challenged by a rival claimant and gave rise to complex legal wranglings not settled till 1634. His delay in
ordination and in taking pastoral responsibility, suggests a sense of obligation to a Church which had educated him—an obligation taken seriously enough but which fell short of vocation. His early enthusiasm for philosophy, 'which is no more than the pursuit of truth, than which nothing seems more praiseworthy', suggests an ambition for a career in the universities. What caused the sudden change in direction? Certainly not the hope of great advancement in the Church, for since the Concordat of 1516, after which the bishoprics and abbeys were in the gift of the Crown, they had been monopolised by the aristocracy. For Gassendi, as a mere peasant, even to be Provost was controversial. To the local big-wigs, who knew his birthplace a few miles down the road, the impoverished hamlet of Champtercier, he was merely 'a little runt of a man' to be baited in lawsuits or quarrels about seating in the cathedral. On one occasion his official residence was nearly demolished by a rioting mob. Nor was it a religious conversion, of a Counter-Reformation type, which led him away from philosophical truth to the recovery of a priestly vocation. One of his first acts as Provost was to publish from Grenoble, where he was on Church business in a lawsuit, a selection of his university lectures. Though perfectly orthodox in tone their preoccupations were thoroughly secular in spirit, being almost a satirical lampoon on scholastic Aristotelean philosophy.

The reasons behind Gassendi's decision to forsake academic life for the cathedral close are to be sought in a complex mixture of intellectual, religious and political problems. The decision to hand the University of Aix over to the Jesuits had been bitterly contested by many eminent local figures. There was a division in the parlement, which went back to the religious wars of the last century, between the Gallican party, who wanted to see the Church subordinated to the State; and those devout Catholics who felt that society had become too secularised and wished to see the enforcement of the Counter-Reformation
through the decrees of the Council of Trent. The Jesuits, associated with the assassinations of Henry III and Henri IV in the public mind, because they taught the legitimacy of deposing kings on moral grounds, had for a time been banned from France altogether. Although the University at Aix was neither financially strong nor intellectually distinguished; being overshadowed by the medical faculty at Montpellier, the theological faculty at Avignon and the proximity of Italy in an age when travel had become fashionable; it became a symbol of the Gallican cause. Moreover, Louis XIII's favourite, Luynes, and his Garde des Sceaux, Du Vair, had close connexions with Provence and were sympathetic to the Gallican party. Du Vair, in particular, though a bishop, was bitterly opposed to the Jesuits; he was a close friend and patron of Peiresc, who later formed a very similar relationship with Gassendi. But in 1621 both Du Vair and Luynes died; and the Queen Mother and the devout party recovered influence at court. This shift in power at the centre ensured Jesuit success at Aix.

Although Gassendi liked to give the impression of being above the religious and political battles of his age, adopting the maxim of Pythagoras, 'I am in this world as a spectator', and despising what he called 'sects' in philosophy, there can be little doubt, at this early stage in his career, that his fortunes were linked to the Gallican party. Without the support of Peiresc, and other influential members of the parlement, he would never have obtained his preferment at Digne; nor would he have been able to command the influence necessary to press the lawsuit arising from his appointment to a successful conclusion. This was an age when patronage was indispensable, not merely to rise in the world but just to stay in the same place. Another conseiller in the parlement who gave influential support to Gassendi was Antoine Gaultier. Both Peiresc and Gaultier appear to have been drawn to Gassendi because they desired to recruit him to the new science. One practical activity in which they were involved was the measurement of
longitudes and the declination of the magnet, newly investigated by
Gilbert; Gaultier and Gassendi measured the meridian of Aix in 1620;
and Peiresc and Gassendi made an ambitious geographical survey of the
Mediterranean in the early 1630s using astronomical methods. Gaultier, like other members of the Aix parlement, had business interests
at Marseilles and such studies had obvious utilitarian appeal. But
there was also a common commitment to an anti-Aristotelian philosophy,
not yet narrowly articulated as mechanism; for the Aix circle attracted
a hermeticist and astrologer, J. B. Morin, who had been patronised by
Du Vair. At the university Gassendi had won the intellectual leadership of this circle by his custom of presenting the texts of Aristotle,
as he was bound to do, but then demolishing the arguments in their
favour in an 'appendix' to his lecture. These appendices, or lecture
notes, circulated freely among the Provencal intelligentsia, and it was
the fear that they might feature, in book form, without his consent
that led him to publish an official version which became the
Exercitationes Paradoxicae, of 1624. They were dedicated to the
First President of the Aix parlement, D'Oppede.

Opposition to the Jesuit College was not purely political or
religious in character. By 1622 the Jesuits were established as front-
line defenders of Aristotelian scholasticism. Although the condemnation
of Copernicus in 1616 seems to have been largely the work of the
Dominicans the Jesuits were bound to maintain the philosophy of St.
Thomas Aquinas by their original statutes. In 1614 the authority
of their general further bound the considerable number of Jesuit
astronomers and experimentalists not to countenance any physical theories
which would undermine Aristotle. This submission to ecclesiastical
authority fostered the conflict with Galileo and earned their order the
contempt of Kepler in Germany. Dispute about the erection of a
Jesuit College in Padua, under Venetian government, was one of the
issues in Venice's quarrel with the Papacy; in April 1606 the Jesuits were expelled from Venice and when they were eventually allowed back it was on condition that the new College be scrapped. The links between Gallican circles in Aix and Venetian anti-Jesuits were close. Peiresc had studied at Padua University where he had formed friendships with Galileo, and the servite friar, Paolo Sarpi, who had spear-headed the propaganda side of hostility to the Pope. These and other contacts were maintained by letter. Peiresc, at an early age, had become a fanatical anti-Aristotelian, and some of his colleagues in the parlement, like Du Vair and Gaultier, shared his opinion. It is not difficult to see why hereditary legal families, whose fathers had with difficulty maintained their position amidst the fanaticism of a religious war, and who flourished so far as they were able to encroach on Church Courts, Church property and papal prerogatives, should be attracted by a new philosophy of science which appeared to strike at clerical philosophy, that is scholasticism, and reduce it to babbling irrelevance.

What is not so easy to see is why Gassendi, as a cleric, should find himself so strongly drawn. He encountered the new philosophy through Joseph Gaultier, prior of La Valette, a remarkable figure whose aversion to publication, mentioned jestingly by Gassendi in the introduction to Exercitationes, doomed him to obscurity on the margins of the history of thought. The first to confirm Galileo's observations of the moons of Jupiter in 1610, he seems to have possessed a remarkably 'whiggish' turn of mind, distasteful to those historians of science who thrill to magic and alchemy. It was he who 'drew Gassendi from the dust of the classes' and presented to him an Aristotle who was merely another pagan thinker, rather than 'the philosopher'. He turned him into an observational astronomer and taught him to value mathematical calculation and observation above logical deduction. He taught him to see the world as clogged by popular superstitions; even though he assisted
at Gaufridi's trial he was convinced he was no wizard and ended by casting doubt on witchcraft and possession altogether. He was a 'late vocation' having been a practising lawyer at Aix, like his brother, till he was 40. His attitude remained very much that of the cosmopolitan layman:

'The vulgar imagine all politics morality and science to be shut up in our Europe ... but to read works on science in a new language teaches us to know our smallness better. I much fear that our professors of science have carried themselves so high they will find themselves soon brought as low again.'

Under his influence Gassendi taught himself Greek and Hebrew and acquired a fascination with oriental travel which he never acted out himself but which was passed on to his pupil Bernier, author of the _Abrégé_ of Gassendi's philosophy, who lived for many years as a Brahmin in India.

It was possibly Gaultier who brought Gassendi to reject astrology, of which he had been a devotee in his youth, and certainly Gaultier who taught him contempt for all forms of pseudo-hermeticism. As the brother of Antoine, the philosophical councillor in the _parlement_, he introduced Gassendi into the best Aix society; this was probably how he met Peiresc. We might speculate that it was Gaultier who put Lucretius, the bible of Epicureanism, into his hands; though it is notable that Lucretius is quoted much more sparingly in _Exercitationes_ than in later works.

It should now be clear why, in 1622, Gassendi said farewell to an academic career, although he continued to give lectures against the philosophy of Aristotle in private rooms, arranged by a canon of Aix cathedral, eagerly patronised by members of the _parlement_ as well as students. The philosophy of Aristotle was ubiquitous in French universities; and the condemnation in 1624 of philosophies other than Aristotle by the Sorbonne in Paris underlined that the authorities were growing more, rather than less, conservative. As Provost he was: 'escaping from the schools, so that, freed from ruinous altercation and
the clash of controversy he would pass over into the clerical life
where he might find a more secure leisure and a more rich tranquility
for philosophising. ³¹ In other words the Church would provide him
with an income which would make him independent of the need to tailor
his activities to academic orthodoxy. It is evident that in the
atmosphere of the 1620s, when an official campaign against atheism and
intellectual unorthodoxy threatened, Gassendi's unofficial lectures, in
the teeth of the Jesuit take-over of his college, amounted to setting
up a kind of anti-university. It was evident to his respectable patrons,
Gaultier and Peiresc, that he could not be allowed to travel very far
down that road. The nature of their intellectual movement was that it
brought in subversion by the back door, not by open defiance of the
authorities. Peiresc had no desire that Gassendi should share the
fate of Vanini, the Italian intellectual who was tutor to the family
of the procureur in the parlement of Toulouse and who was tortured and
executed for a form of atheistic pantheism in 1619. ³² Although his
books were in Peiresc's library, to which Gassendi had free access, and
though both felt sympathy with some of his ideas, this was a matter for
their private—rather than the public—world. ³³

According to Sorbière it was Peiresc and Gaultier who had the idea
of placing Gassendi at Digne and persuaded him 'to accept the yoke of
the priesthood'. In the case of the former this was certainly not due
to any respect for the priesthood as a vocation. In 1627, only a few
years later, D'Aubray, the son of a rich merchant family, was on the
point of becoming a priest. Peiresc and another prominent Gallican,
Pierre Dupuy, persuaded him to abandon the idea and buy a post of
Master of Requests to follow an administrative career instead. ³⁴ If
Gassendi had had money the same advice might have been given to him.
Peiresc's own, rather cynical, attitude to the Church might be deduced
from the fact that, though a layman, he drew a large slice of the
income which he spent on manuscripts, curiosities and scientific research from his post of abbot of Guitres in Bordeaux. This post he held in commendam; that is, it was a reward for his services to government from 1617-21 and, as titular abbot, he administered by correspondence and never visited the place. As a further twist of cynicism, as a member of the Assembly of Notables in 1617 he had approved a measure declaring in commendam tenure illegal.35 It was condemned by the decrees of the Council of Trent but the strength of anti-clericalism in parlement circles ensured that its decrees were not recognised in France.36

What Peiresc's own beliefs were is problematic. He shared Gaultier's clinical fascination with the credulity of the 'vulgar',37 that is, the rest of mankind, and he grew querulous and impatient at what he called 'moinerie'—a blanket term for authoritarianism, backed up by an appeal to popular credulity, which he associated with religious Orders.38 The advice which he gave to the depraved and atheistical young J. J. Bouchard, on his way to seek his fortune in Italy: 'Speak no good, and speak no ill, of God or the Pope', seems to sum up the policy which enabled libertinage to penetrate so deeply into the Catholic Church in the first half of the seventeenth century.39 Just how deeply may be gauged from the fact that Peiresc was among the intimate friends made by Cardinal Maffeo Barberini, during his period as legate in Paris; after he became Pope, as Urban VIII in 1623, he continued to value Peiresc's correspondence. Even closer were Peiresc's ties with his ascetic, cultivated but Epicurean, nephew Cardinal Francesco Barberini, who honoured Peiresc with a State visit, when he visited France as legate to negotiate with Richelieu in 1625.40 Both the Pope and his nephew were at this time heavily involved in plotting the downfall of Aristoteleanism. It was as a cardinal that Maffeo had first become the patron of Galileo, taking his part in a public debate on
floating bodies. In 1624, as Pope, he accepted dedication of the Assayer, a work in which Jesuit scientists were heavily mauled. French free-thinkers, in the circles of Peiresc and Gassendi, like Naudé, Holsteinius and Bouchard, flocked to Rome to find patronage and employment under Urban’s cardinals. They were not disappointed. Francesco Barberini and Peiresc were both close friends of Cassiano del Pozzo, a nobleman who patronised both arts and sciences. He wrote to Peiresc that he hoped to see the new experimental science ‘show to be natural many effects which the vulgar hold to be miraculous’. This typifies the mentality of his circle. The notebooks of Bouchard for his Italian tour are full of gleeful accounts of relics and miracles which his superior Gallic penetration detected as frauds. It was doubtless his friendship with Peiresc which persuaded Cardinal Francesco, as legate, to issue the bull appointing Gassendi as provost of Digne; but it was also the gesture of a man whose hatred of Aristotelianism was so profound that he cast his vote for Galileo in 1633, even though the Pope had then turned against him. Doubtless it was Gassendi’s attack on Aristotle, in lectures and in his forthcoming publication, rather than his piety, which convinced the Cardinal that here was an advanced thinker who merited preferment.

It has become fashionable in the twentieth century to play down the possibilities of free-thought in the sixteenth and seventeenth centuries and to accept, at face value, professions of religious orthodoxy. This trend began with Carlyle who determined to prove that Cromwell’s religion was sincere, even though many of his contemporaries had felt otherwise. If we accept outward professions at face value, there can be no doubt that Gassendi was an ardent Catholic. At the beginning of the very book we have been discussing he asserts unequivocally:

‘I commit myself and all my views to the judgement of the
One, Holy, Catholic, Apostolic and Roman Church, of which I am a member, and for whose faith I am ready to pour out my life and my blood.¹⁴⁸

A cynic might regard this as a prudent enough motto for a work which aroused such controversy that its author, recently promised a senior ecclesiastical post, decided to suppress the planned succeeding volumes.⁴⁹ But even if we take it at face value, and apply a strictly literal interpretation, there is no commitment here to the truth of any Christian beliefs. He is merely asserting a loyalty to the institutional Church, which, however, unconditional, does not bind him personally to belief in any article of its creeds. "My soul is not so feeble and timid that I should believe that anyone may decide what is a dogma or an article of faith. I believe in the Church,"⁵⁰ But an 'I believe in the Church' is very different from an unequivocal statement of belief in Christianity. The position is highly legalistic, despite its emotional expression. The Church's power to define and enforce its own creeds on the faithful, including Gassendi, is upheld against Protestants and heretics who have challenged it. But Gassendi never showed any intellectual sympathy for Protestantism; no-one would accuse him of that. It is evident from his whole career that he believed in the Church as an institution; a view which, if anything, grew stronger in the 1640s. But as Cicero or Seneca, whose views on religion he so often quoted, believed strongly in the pagan religion, without being personally committed to the legends of the gods, so Gassendi's statement upholds a social rather than intellectual orthodoxy. A similar position can be detected in the works of Montaigne and Bishop Charron; in the Exercitationes and his first extant letter he acknowledged both writers to have been dominant intellectual influences.⁵¹

Is there any hard evidence that Gassendi was not inwardly a believing Christian, that he lived a double life? It has been argued that he had no personal connexion with the great movement for
religious renewal in the French Church, associated with Berulle, St Francois de Sales or Vincent de Paul. He showed no enthusiasm for the conversion of the Huguenots or the renewal of popular devotion. The faith of those who were his intimate friends is, to say the least, under suspicion and the fact that, unlike many of them, he lived a life of ascetism and moral rectitude could merely be the result of the seriousness with which he applied himself to his Epicurean principles. Gassendi's defence of Epicurus was based on vindicating the probity of his private life, his love of virtue; superior to that of common Christians, because of its indifference to supernatural sanctions.

It was Karl Marx, writing his doctoral dissertation on classical atomism, who compared Gassendi's attempt to reconcile Epicureanism with Christianity as: 'a nun's habit thrown over the luscious, palpitating body of a Greek courtesan'. The simile irresistibly recalls certain strains in baroque religiosity: the cult of the Magdalene, celebrated in the English poems of Crashaw or the Latin verse of Urban VIII; penitential and mystical on the canvas of Latour; or uniting the extremes of sensuality and contemplation in the sculpture by Bernini. Bernini's Magdalene, in particular, bare-breasted and with loosened hair, thigh provocatively thrust forward and eyes raised in prayer, her gown of endlessly repeated folds thrown scantily round her remaining charms, seems to mirror the conflicting impulses which led Gassendi to fashion his philosophy from the pleasure principle and the beatific vision combined. There is something Italianate in Gassendi's style; rooted in the foreignness which French visitors to Provence experienced on crossing the Durance or the Rhône; which accounts for his falling out of fashion at the court of Louis XIV, where the sternly classical triumphed after 1660, and for his continued influence in eighteenth-century Italy.

Provence was a centre of the Magdalene cult and the tradition
reached back to around AD 40 when a boat, without sail or oars, brought Mary, Our Lady's sister, Mary mother of the apostles, Mary Magdalene, Martha, Lazarus, and the Holy Grail, to port in Les Saintes Maries de la Mer. The Whitsuntide boat festival is still celebrated by the gypsies. But in the seventeenth century the story was the property of all Provence. It was enshrined in the official breviaries and had given rise to a variety of individual local legends. At Tarascon, where Martha had slain the Tarasque; or Draguignan, where the Dracque had perished; at Marseilles where Lazarus had founded a bishopric and begun the conversion of Gaul; at the Sainte Baume, the holy grotto where the Magdalene's tears had formed streams; the legends formed the centre of noisy festivals and communal identities. Successive French kings as counts of Provence, could not neglect these pieties and performed a pilgrimage of the holy places. The Magdalene was patroness of the new refuge for prostitutes, a problem which had increased rapidly from the neighbourhood of an impoverished countryside to a growing seaport. She was patroness of a new order of nuns for daughters of impoverished gentlefolk, without a dowry, patronised by Gassendi's patron, Louis de Valois, Governor of Provence from 1637.

What was Gassendi's attitude towards this cult? In 1630 he wrote to his friend Luillier, a drunkard and a womaniser as well as a sceptic, with whom Gassendi preferred to stay during his visits to Paris: 'I have come to Digne like the Magdalene to the Sainte Baume. Your letters are like messages from heaven.' The Sainte Baume was the mountain where she had done penitence, clad only in her hair, for thirty years, receiving messages from consoling angels seven times a day. Gassendi mockingly compared Digne to a grotto of penitence, because he was remote from all his sceptical and erudite friends, and obliged to discharge punctiliously his ecclesiastical duties, such as giving sermons and attending divine office in the choir.
Three images of the Magdalene: Bernini and Rubens — prototypes. La Tour's contemplative figures have been directly influenced by Gassendi's theories that the soul is a fluid of gaseous atoms and that she has set aside her theology looks across and prevalent scenes.
enforced on himself for very long periods. When he wrote this letter he had just returned from a tour of Holland and the Spanish Netherlands, in company with Luillier, its recipient. Apart from taking the opportunity to escape, whenever he could, to Peiresc in Aix, he was in Paris for most of the period 1642-48 and again from 1652-5. His powerful connexions enabled him to ignore his bishop's fulminations about non-residence.

Yet whatever the frivolity with which he treated the legend in private, in Easter 1638, at the great public festival in Saint Maximin's cathedral, on the Sainte Baume, in the presence of the officers of the parlement and the assembled people, he and two other witnesses, the governor De Valois, and the First President of the parlement, verified the authenticity of the annual liquefaction of the blood of Christ, which had been poured out of the grail, and sealed in a glass ampoule, by Mary Magdalene herself. It was in his capacity as natural philosopher, rather than as a priest, that Gassendi was called upon to observe this miracle. Efforts to simulate laboratory conditions had been made by leaving the phial in a sealed room unattended and by calling on Gassendi, and the two most eminent laymen in Provence, to examine it before exhibiting it to the public. The reason for these unusual precautions was a little pamphlet which appeared in Latin, though its contents rapidly diffused themselves among the people, arguing that the whole Magdalene legend was a myth whose origins could not be traced further than the early middle ages. The author was Jean Launay, soon to be nicknamed 'le dénicheur des saints', whose ambition was to apply to ecclesiastical history the same standards of objective criticism which the new science had brought to physics.

Gassendi had formed a close friendship with Launay, who wrote a fulsome obituary on the significance of his work in 1656. Launay's main principle, that 'the silence of history does not allow us to impose
on it whatever fiction we please,' paralleled Gassendi's position that ignorance of nature is not a licence to plot out a new physics like a novelist. Gassendi himself can be regarded as the first serious historian of science. Launay's iconoclastic attitude was similar to that of Peiresc, who had removed part of the Magdalene's relics for examination and wrote with contempt of the mythology behind such shrines as Saint James of Compestella. Another aspect of historical study, apart from discrediting clerical mythology, was the more damaging anti-clericalism of writers like De Thou and Pierre Dupuy, showing the Church to be, in historical terms, an institution like any other. Like Sarpi, with whom they were in contact, they employed meticulous scholarship, and examination of documents at first hand, to eliminate the supernatural element from clerical history and to demonstrate, in legal terms, the strength of the State's claims to lay supremacy in all matters where Church-State relations were in dispute. This work was encouraged—indeed urged on—by Cardinal Richelieu, whose passion for extending the State's power was unbounded. It is significant that although De Launay's book was solemnly condemned by the parlement of Aix in 1644 the Sorbonne and the parlement of Paris were silent. Struggling to combat provincial independence, and increase taxation, Richelieu was by no means displeased to have Provencal illusions about their past undermined; and as for the Provencal clergy they were among the ringleaders in opposing taxation of the Church.

Pintard's image of Gassendi as a man with two philosophies, the libertin behind the soutane, has scandalised those scholars who find hypocrisy incompatible with the life of a conscientious priest or the philosopher questing for truth which we glimpse in his acts and writings. This has led to much clutching at straws in order to prove his orthodoxy;
for example, Professor Rochot argues that because Gassendi contributed a life of the first bishop of Digne, the obscure Saint Domnin, to the *Acta Sanctorum* of 1644, 'those who see in him *un homme double* will be at a loss to explain it as a mere erudite smoke-screen.' But although this was not a 'mere' smoke screen, for he was a genuinely patriotic Provencal anxious, as Digne's provost to boost the prestige and revenues of his Church, he was also keen to disassociate publicly from the de mythologising tendencies of his sceptical friends in Paris. Since he secretly sympathised with those tendencies, the life of Saint Domnin is hardly a knock-down argument for Gassendi's simple piety. In 1644 the controversy over the Magdalene legend was at its height. The Jesuits had replied to De Launay in 1642 with a pamphlet which, according to Haitze, was so unconvincing it served to spread unbelief to a more popular audience. A battery of Provencal historians—Haitze himself, Bouche, and Pitton—eventually came into print to marshal the evidence for the legend in a more scholarly manner. Of these Haitze and Bouche were closely connected with Gassendi because De Valois was their common patron. Their modest aim was 'to avoid fiction as much as we can and not shake the faith of the uneducated'. Bouchard in 1630, had drawn attention to 'the ease with which spirits in Provence are governed by religion' and the primary importance of the Virgin, the saints and the local festivals. Gassendi feared to disturb this popular piety, which probably seemed to him as soundly founded as any other feature of Christianity, on an unquestioned tradition. But just as he could uphold popular piety in public, whilst nursing his unbelief with his friends, so his Christianity might be equally cosmetic.

The interpretation of Gassendi emerging from this evidence is Voltaire's amphibian between two worlds: 'In Provence he was called "le saint prêtre", in Paris by some "l'athée".' The sceptics of the Parisian humanist circles, and the Provence of the Counter-Reformation,
with its folk-histories, miracles and fierce sense of community elicited quite different standards of judgement. This inconsistency amused Gassendi's closest Parisian friend, the sceptic Gabriel Naude: 'By the Pope! What a transformation on our Parisian philosopher has been wrought by Digne and Aix — or rather by living in the countryside.' His reaction to fraudulent exorcisms, by the parish priest at Pourrières, showed a similar doublethink. The priest was at odds with the local Vicomte — arguments with laymen over land and rights were endemic in the French Church, following the confusion of the religious wars. But at Pourrières the supernatural intervened when the local priest discovered his powers of exorcism over some obstreporous evil spirits. Congregations swelled and money poured in until the Vicomte stepped in and exposed the exorcism as a fraud. Gassendi wrote privately to Luillier that although he believed the Vicomte in the right he could only deplore the greed and anti-clericalism which had prompted the exposure. Gassendi was not above profiting from the aura of the supernatural which surrounded him at Digne after he had picked the two months of the worst plague in the town's history to visit the Netherlands. The locals were convinced his star-gazing had enabled him to foresee the plague. Although Gassendi denied his magical powers, this was regarded as a mark of extra shrewdness. His reputation as a mage was perhaps one reason why the cathedral revenues showed a sharp upturn in the 1630s. There are other examples of Provencal priests being treated as wizards; apart from the notorious Gaufridi. Pere Yvan, who was Peiresc's parish priest and later De Valois' confessor, was widely famed as a clairvoyant and rainmaker.

Such examples show Gassendi concealed his incredulity in the interests of fostering popular belief. They point the absurdity of arguing that Gassendi was incapable of dissimulation and the soundness of Pintard's instinct that he was 'un homme double'. This leaves Popkin's view that he was a 'liberal Christian', who recoiled from
Tridentine Catholicism, rejected certain dogmas, but was still a sincere fideist in the Protestant sense of that term. Gassendi rejected the idea that truth was found in formal deductive statements. He compared the philosopher to a hunting-dog, tracking down its quarry by an instinctive sense of smell and interpretation of 'signs'. If this approach is adopted, we cease to look for Gassendi's true views in reasoned statements of belief. A conclusive counter-example to the view that he was a Christian believer in any moral or dogmatic sense is the application of the phrase 'grand prince' to Julian the Apostate (361-3 AD) in a letter to Peiresc written in 1628. The context was the forthcoming edition of his Greek works, edited by Fr. Petau S.J. Why should a priest, or any Christian describe Julian the Apostate as 'great'? Gassendi certainly omitted any such epithet when he mentioned Julian in his Exercitationes and in other published works.

Such an omission was a wise precaution. The significance of Julian as a hero of the libertin movement had already been pointed out by the Jesuit Fr. Garasse in a general denunciation of free-thought published in 1623. Garasse has had a bad press from historians; partly because they are reluctant to admit the existence of a libertinisme as widespread as he claimed; partly because Garasse was later condemned by the Sorbonne. The short-sighted reasoning seems to run: the Sorbonne was highly reactionary, yet it condemned Garasse so he must have been very far out indeed. But they forget the politics of the situation. The Sorbonne might be reactionary in the sense that it was pro-Aristotelian, but it was a stronghold of Gallican liberties. Garasse was condemned as a Jesuit whose book conflated Gallicanism with libertinism and both with the legal class. Nor was this charge extravagant, as the example of Peiresc and Gallican circles in the Aix parlement shows. Garasse put this speech into the mouth of a typical libertin:
for my part I am against the celibacy of the clergy; Gregory of Nazianzan was wrong in attacking the reputation of the Emperor Julian. Constantine was a humbug, St. Louis' piety nearly ruined France ... at every other word you will hear the term Gallican Liberties. The inquisition will be denounced as barbarous, the Huguenots are to be tolerated; they had some good points about the excess of images, processions and idolatry of the people ... you will hear him praise the death of Socrates and the virtue of the pagans. 83

This pen-portrait seems a remarkably accurate summary of leit-motifs characterising the thoughts of Du Vair and Peiresc, or Gassendi's Parisian friends like Naude and La Mothe Le Vayer -- the latter actually wrote a book entitled La Vertu des Paiens. Julian the Apostate was praised in it in glowing terms. He was described as the 'hero of the libertins', and remained so in the eighteenth and nineteenth centuries. 84

It might be argued that Gassendi calls him 'great' because of the military and administrative virtues which he undoubtedly possessed. But when the King of Sweden, the greatest commander of the age and at that time France's ally, was killed in action in 1632 Gassendi commented: 'A sad loss — I mean as a conversation piece ... this is their grand strategy — to get themselves talked of.' 85 His opinion of generals and politicians was low and the word 'great' was not a term he used casually. Is there another historical character to whom he applies it? There can be no doubt that if Gassendi admired Julian it was for the same reason that Edward Gibbon later made him the hero of his Decline and Fall: because philosophically he tried to turn paganism into an intellectual system, whilst accommodating popular superstition, in what has been described as 'a kind of pagan universal church', 'a pagan catholicism'. Because he devoted his energies, as Emperor, to trying to save Europe from Christianity. 86 These are hardly the sentiments of a 'liberal Christian'; unless we adopt Cardinal Newman's description of this school as 'a bottomless liberalism of thought'. 87 These three words alone 'ce grand prince' indicate unequivocally that both Peiresc and Gassendi regarded Christianity as a superstition which had blighted intellectual
freedom. It has been noted by his biographers that Gassendi, from early on in his career, was a strict vegetarian.\textsuperscript{88} It has been stated, rather absurdly, that this was a mark of Christian ascetism; a point of view which rather ignores that the Carthusians and the Minimes were the only Christian bodies on whom vegetarianism was then enjoined for ascetic reasons. It also ignores the letter which Gassendi wrote to Van Helmont, defending vegetarianism by appealing to questions of health and theories of natural diet, and making no reference to ascetism.\textsuperscript{89} But there was a spiritual dimension to vegetarianism in Julian's circle. Julian himself practised it; and Porphyry, a strongly anti-Christian philosopher in his entourage, wrote a treatise on the subject.\textsuperscript{90} Gassendi quotes from it extensively in Greek in his \textit{Syntagma}.\textsuperscript{91} Porphyry referred to the vegetarianism of Gassendi's own mentor, Epicurus, and to the vegetarianism enjoined on the disciples of Pythagoras. He argued that the neo-Platonist doctrine of reincarnation, which Pythagoras originated, was the main reason for abstaining from the flesh of animals.\textsuperscript{92} It may seem paradoxical to argue that Gassendi, who has been regarded as an archetype of rationalism, believed in reincarnation. But in \textit{GASSENDI ON LIFE AND SOULS} this conclusion is shown to be a logical component of his effort to adjust Catholic dogma to a context of liberal paganism.

He was strongly influenced by the theory of Porphyry and the Alexandrian neo-Platonists: that an ancient wisdom was brought to French Druids by exiled Pythagoreans after the break-up of their brotherhood. Gassendi refers approvingly to the Druids' passion for astronomy, knowledge of nature and to the vegetarianism of the Hyperboreans.\textsuperscript{93} It was widely believed by Gassendi, Campanella and others, that the Pythagoreans reserved their secrets, including Copernicanism, for oral transmission in order 'to keep the vulgar in ignorance'. The Druids believed in a form of reincarnation.\textsuperscript{94} On his death-bed, rejecting the psalms chanted by the priest, Gassendi quoted some lines of Virgil...
originally spoken by Aeneas to the Sibyl of Cumae on the threshold of his journey in the underworld. Aeneas was handed the golden bough, or mistletoe, whilst his dead father showed him the souls of the heroes, destined for reincarnation, drinking at the waters of Lethe to forget their previous lives. It is likely that when Gassendi said: 'For I have traced all that may happen on the way, in the anticipation of my inward thought', he was recalling the context of the pagan mystery religion in which Virgil had placed it.

Another of Julian's theories—that the sun was the image of divinity and the rays of the sun planted souls in matter, drawing them up to the sun when they died—was embodied in Cyrano de Bergerac's philosophical science fiction story; which shows traces of Cyrano's early contact with Gassendi. Unashamed sun-worship is to be found in an anonymous libertin tract, written in the 1650s, which contains a full account of the theory that religion is a benign and necessary conspiracy of the élite against the ignorant multitude. Charron was not afraid to defend sun-worship in the Sagesse as the most reasonable natural religion. Campanella, whom Peiresc befriended after his return from Italy, actually practised sun-worship, though a Dominican Friar. Peiresc regarded it as the religion of the original inhabitants of Provence and Gassendi credited it to the Druids. Writing flatteringly to De Valois, and comparing him to the sun, Gassendi added: 'As even in holy faith it is permitted to have an image of the living God why not in the profane also? The universality of the sun makes it most suitable.' This was the theology of the Emperor Julian: that the sun is not God but only his visible aspect, and that its universality mirrors the divine. Even the phrases by which Gassendi refers to God: Ter Maximus, Ter Immortalen; Ter Optimus are ambiguous. They were the same names which neo-platonic writers, such as Julian and Porphyry, urged for the trilicity of the divine nature. To the uninitiated the use of Ter might
be an innocent reference to the Trinity. 103

The conversion of Sorbière shows how cunningly Gassendi could cloak impiety in religious language: being misleading rather than totally dishonest. He wrote of his friend's projected conversion to Catholicism:

"For this is a matter of such weight that it has no equipoise. It concerns the highest salvation, for which not the whole earth with all the gold therein, nor the universe itself would be sufficient." 104

"Who can doubt the honesty of this declaration?" asked Borkenau. Even Pintard comments: "This is a pious letter such as Gassendi wrote only for grand occasions." 105

It was indeed rare for Gassendi's letters to take a biblical turn, though he knew his texts well enough. Sorbière edited the collected Opera in 1658 prefaced with a pious biography. An intimate friend of Hobbes, he had ceased to be an orthodox Calvinist and taxed his family's patience by moving into Socinian circles; intellectually the most radical of the sects, rejecting the supernatural and most theology, especially the Trinity and the Incarnation. 106

When Gassendi's Animadversiones, or apology for Epicurus, came out in 1649, he began to translate it secretly. These were the years of the Fronde. Sorbière was in a kind of limbo, effectively disowned by his respectable Protestant relatives in Languedoc and the United Provinces and, as a Huguenot, with little prospect of advancement in Catholic society. 107 With the arrest or disgrace of the aristocratic party in early 1650, including such powerful patrons of Gassendi as De Valois, Joyeuse, and the Princes of Condé and Conti, it became obvious
that he could hope little from that quarter. Moreover, Gassendi had ordered him to cease work on translating the Epicurus, once he found out about it—perhaps from an aversion to presenting it to the 'vulgar', perhaps from fear that its impieties would sound more grossly in French.

Sorbière's retreat into the bosom of the Church was opportune and the eccentric physician, and close friend of Gassendi, Gui Patin, never doubted his motives:

"He plans to draw pensions and livings to dwell in the shade of the crucifix all his life, doing nothing and flaunting his scepticism, having long since had his name deeply scored in the regimental role of those who would believe nothing if only they were paid for it. This is the Turk's way of belief and that of most of our monks today, and many others whose God is use and profit not piety. O tempora o mores."

This was Patin's usual way of ranting on, and he had an additional grievance against Sorbière because he had ventured to criticise doctors. In Patin's credo the College of Physicians seems to have been God and Galen its profit. But so far as Sorbière's motives were concerned a more subtle analysis would be superfluous. The letter of Sorbière to Gassendi, announcing his conversion, is evidence of that:

"The bishop of Vaison will receive me into the bosom of the Catholic Church ... I have knotted together a triple chimera: the Lord bishop of Vaison and the Cardinals Bichi and [Francesco] Barberini whom divine providence has already prepared for the purpose of restoring my fortune, along with many other patrons of whom I will say nothing, who wish the good of my soul. Thus I am hopeful, in a short space of time, to recover speedily all the goods I have sacrificed to the cause of truth."

The chimera image is not very complimentary; taken literally the bishop would be a lion, Barberini a goat and Bichi a dragon. Such disrespect aside, the cynicism of this account is biting. Sorbière had not been disinherit for becoming a Catholic but for his wayward and libertin existence in the previous decade.
The paragraph (below), which followed the lines quoted (p. 108), implies that far from reproving Sorbière's frivolous spirit, Gassendi's own tongue was firmly in cheek:

'This change will put you on the right hand of the lofty and you have chosen the best portion, which I am sure you will never repent, and are particularly lucky to have fallen in with such a good and generous patron ... who, as you know your own price, will be a refuge to you in your sacrifice of all these human things.'

Whatever his patron might do, the ordinary terms offered to converts by the French government were generous, so the 'sacrifice' referred to was negligible, merely his resignation of his academic post in Orange.

It is characteristic of Gassendi that he avoided quoting scripture verbatim wherever possible. The sentiments of his reply to Sorbière scramble a number of texts: losing the soul and gaining the whole world, serving God and mammon, Mary Magdalene's choice of the better part, God's right hand, repentance; but the absence of precision helps to mask the lack of religious context. Gassendi does not exactly say what he does not mean; but few would spot that the key word 'soul' is absent from the phrase de salute summa or that dextrae Excelsi means right hand of the eminent, not the Most High; or that the term portion, which means a spiritual portion in scripture, is shifted back into a material context. The Latin is an enormous help here, in proliferating ambiguities, and perhaps this gives one clue as to why Gassendi preferred not to write in French. Sorbière was becoming a Catholic as a matter of social convenience, with his underlying scepticism unchanged; and Gassendi knew it.

Another significant feature which emerges from the same letter is the taut and emotional obituary of Louis de Valois, who had recently
died under Mazarin's official disapproval. Sorbière's letter offering condolences to Gassendi, for the death of his friend and patron, ventured to express the hope that De Valois was in heaven. In sharp contrast to his pious riposte about Sorbière's conversion, Gassendi ignored this remark and notably excluded theology from his valedictory reply. It was the language of paganism which sprung naturally from his pen as he concluded that his patron had failed because he was too honest for his century: 'Will fate give earth nothing better, will the good Gods not give us a return to that first golden age?', he concluded. The longing for the return of a golden age meant more to Gassendi than theological terms. It is equally strong in the letter to Du Faur de Pibrac which opens volume VI of the collected works. There he locates the last golden age in the reign of Marcus Aurelius; an opinion which he shared with Bacon and which Edward Gibbon expanded in his history. Gassendi was aware that Christians were persecuted in his reign. In view of his opinion of Julian, it seems likely that, like Gibbon, he regarded this as a regrettable inhumanity rather than an attack on Truth.

The examples which have been analysed, the legend of the Magdalene, Julian the Apostate, and the conversion of Sorbière, suggest that Gassendi's love of classical learning was coupled with an element of unbelief rooted in outright paganism. This was concealed, and perhaps moderated, by a variety of powerful counter-influences: his loyalty to the Church, his professionalism as a priest, his fears that simple popular beliefs—in a turbulent society like Provence—could not be undermined without creating serious dangers to social order. Although he dedicated himself to the revival of Epicureanism he does not seem to have shared the faith of Lucretius, and other disciples, that knowledge of natural science would bring freedom from superstition and liberation for all mankind. In the Exercitationes he expressed his contempt for the common people, who would respond like the donkey with the lyre if
his philosophy were to be put in their hands. He was deeply pessimistic about superstition, which he apparently regarded as a fixed quantity in human psychology, unresponsive to the accumulation of knowledge:

"Human weakness is such that almost everyone is dragged along by opinions fermented by ambition, avarice and custom and the number who seek to regulate their appetites and feelings according to natural necessities are few. Men are always the same, indifferent to time and place, and it seems that superstition is so natural to them that, although a variety of encounters with states of affairs can diversify its particulars its substance can never be destroyed."

But knowledge of natural science, and its materialist basis, could bring Epicurean enlightenment for the few, the initiates: Gassendi, his friends and correspondents. Expressions of elitism and contempt for the vulgar abound in their writings. This helps to explain why the Catholic Church was a necessary component in Gassendi's thought; without its ceremonies and festivals the common people would only pursue the irrational in some other, more dangerous, form. Perhaps it was for this reason, rather than simple self-preservation, that Gassendi assiduously refrained from challenging the Church's authority over Copernicanism; even reintroducing the forms of Aristotelian scholasticism into his writings in the 1640s, for the purpose of harmonising his concept of God and the soul with traditional teaching.

There was an element of this tension, stronger than has been supposed, in the lives of many intellectual Catholics in the Renaissance. Thomas More, not canonised till the twentieth century, strongly opposed Protestantism and Henry VIII's attack on canon law. But his Utopia shows him to have been a keen critic of Christian institutions; in Utopia there was no hierarchy among the clergy, a very small number of priests in relation to the population, and no clerical landed endowments, courts or canon laws. Like Gassendi, More argued the virtues of
human equality with animals. Butchers and huntsmen were pariahs in Utopia and meat eaters were second-class citizens. It used to be held that Utopia was a joke; but I think it impossible to doubt that More was giving his own views; however realistic he was about the possibility of their future acceptance. Like Gassendi, More was able to distinguish between the ideal society; or community of the élite; and the norms which 'ambition, custom, avarice' imposed on the many. More was taken up by Gassendi's circle; Gabriel Naudé canvassed the possibility of his secret Rosicrucianism, and Sorbière translated his Utopia in 1643—which seems to have brought the young Socinian to the attention of Hobbes and Gassendi.

In the case of Gassendi, there was not so much a tension as a calculated dualism of thinker and writer, philosopher and cleric. This places him in quite a different category from More, Marsilio Ficino, Erasmus and other Renaissance thinkers who bestrode paganism and Catholicism. In this context efforts to 'prove' Gassendi's orthodoxy ring very hollow. Gassendi's arguments for the existence of heaven and hell were so bizarre that it was most unlikely he held the beliefs himself: that Gassendi's insistence on two souls, a material and a spiritual, or his time/space continuum, uncreated by God, were formally heretical. Fr. Lenoble, who found the idea that Mersenne might have been a secret sceptic horrifying—'For one does not lightly accuse a priest of playing a comedy'—originally had no such reservations about Gassendi. Lenoble regarded his protestations that he was merely baptising Epicurus as crudely at variance with the real direction of his work.

Later he changed his mind, convinced by the supposed piety of Gassendi's death. Yet this rests on the evidence of friends who were themselves suspected of libertinage: Fr. Launay (who attacked the Magdalene legend), Fr. Boulliau (who thought the Turks better Christians than the Europeans) and Sorbière. Fr. Lenoble claimed it would argue
'exceptional cynicism', if there were a cover-up on this scale; yet such cynicism, as Fr. Lenoble should know, was far more common in the seventeenth century than it is today, when a mask of religion is no longer a hygienic social necessity. Gassendi himself, writing to Campanella, who had argued that his first draft on Epicurus smacked of atheism, replied:

'Quippe quod Philosophicum agam, dissimulare non debo ... quod Christianus etiam et Theologus sim, miminisse debo, quid utramque personam deceat. Hac ratione te imitor ...',

Gassendi was always very careful in his choice of words; especially where they contained a confusing dual sense. The emphasis here on being a philosopher first, and a Christian or theologian etiam (as an afterthought), leads in to the use of the term persona (literally mask or dramatic role): 'I ought to remember what is seemly for these two masks.' His addition of 'In this I imitate you' added irony; since Campanella was a friar, highly unorthodox in his beliefs, imprisoned for years by the Inquisition. It was Gassendi's materialism, not his atheism, for which he was really being criticised on this occasion. Persona was being used quasi respectfully; but it was not a word to which Gassendi normally attached the solemnity suggested by its association with his role as Christian and theologian. 'Rideo personatem histrioniam quam universus exercet mundus.' Here it means 'I laugh at the world's hypocrisies.': and the context is a denunciation of scholastic philosophers, whose hypocrisy consisted in that they pretended to be seeking truth, as philosophers, when they believed that they already had it, as theologians.

Julian the Apostate had forbidden Christians to hold academic posts on similar grounds: 'If your scriptures are sufficient why do you nibble at the learning of the Hellenes? Men of faith are unfit to enjoy the advantages of science.' An admirer of Julian, it is hard
to see how Gassendi can have felt anything but contempt for the
religion he professed. Julian had pretended to be an ardent Christian,
until he became Emperor, in order to secure his survival and succession
to the throne. Gassendi's motives for concealment were rather more
complex; but was the mainspring of his theological and Christian life
more than a legal, or professional obligation 'which I ought to remember'
to a Church which had educated him and maintained his leisure? As he
wrote to Luillier, his clerical duties enforced 'quelque petite contrainte',
but he discharged them 'comme naturel'. Shocking though such play-
acting seems now, it was common then. De Valois wrote to Gassendi
of how he could only discharge his obligations of governor by wearing
a mask; which he needed to lay aside amongst friends. Montaigne, in
a famous passage, declared that the Mayor of Bordeaux wore make-up but
Montaigne was natural. But it seems rather less incongruous to find
governors, or mayors, borrowing the notion of the mask; which originated
with the Epicurean pornographer Petronius; than to see it applied by
Gessendi to Christianity. It makes sense only if we accept Gassendi's
unbelief: no genuine believer, no priest with a serious vocation, would
separate their true selves from the person of Christian — or indeed
of Christ — in any period. And how many would reply to a suggestion
that they were advancing an atheistic philosophy with the words:

'In so far as I am a philosopher, I ought not to dissimulate ...
in so far as I am a Christian, and a theologian, I ought
to remember what is seemly in these two roles'?

No one who has studied Gassendi closely can believe that he was a
Christian in more than a purely formal, stylistic sense. Merick
Casaubon discovered the lineaments of this in his philosophy: no
providence, no individual conscience, no good or evil in nature, no
justice or injustice; rejection of supernatural in favour of secondary
causes, rejection of doing good from motives of hope or fear of a life
to come. Having confessed 'a particular respect to Gassendi as a man
of learning', and accepting the possibility that Gassendi himself may not have been a complete hypocrite and atheist. 'I hope not - but had he advised with hell itself he could not have lighted on a more destructive way to all religion and piety.' This seems a dramatic but not intemperate statement of the case—considering the norms of religion and piety which were binding in the seventeenth century. Casaubon's broadside was not isolated, and from France and Italy reports of the solvent effect of Gassendi's writings trickled in. His friend the Jesuit H. Fabri wrote a book vindicating Gassendi from the charge of atheism; but denying reports that he personally was a Gassendist; and warning about the dangerous direction of his principles, which had induced atheism in others. A proposal to put Gassendi on the Index towards the end of the century came to nothing.

There was not necessarily any contradiction between Gassendi's hostility to Christian beliefs, and his loyalty to the institutional Church. There were a number of reasons why the Catholic Church might have appealed to him. It was international and its language, Latin, was the lingua franca of the republic of letters. Within the French kingdom the Church had always been a traditional limitation on the monarchy; and this was more needed than ever now that absolute monarchy was trampling all restrictions under foot. As a peasant, Gassendi resented the spiralling taxation of the common people; as a priest he feared the growing subordination of Church laws, finance and personnel, to the position of a department of State. Hence his involvement in the aristocratic rebellion of the Fronde. He disliked war, and European civil war in particular, hoping instead for a crusade against the Turks. The unity of Christendom was an ideology created by the Catholic Church; and the papacy had always sought, however unsuccessfully, to mediate a settlement of European wars. The above ideals Gassendi inherited from the Catholic humanists of the previous century. Hostility to Protestantism
made more sense if all supernatural Christianity was equally untrue. As Gassendi put it, since the truth of these matters can only be absolutely determined in heaven it is best to accept the Church's authority—without question—here on earth. This was widely believed among Catholic intellectuals; notably by Montaigne and Gassendi's friend La Mothe Le Vayer.

Gassendi began his career as the protegé of the parlement and of those clerics, such as prior Gaultier, who shared its legal and intellectual animus against medieval traditions in both thought and society and who were drawn to the Church from a legal family background. Although particularly strong from 1616 to 1626, this association continued after he became provost of Digne—largely because of Peiresc, in whose mind anti-clericalism, Baconianism and anti-scholasticism were intimately associated. But, already, as a cleric struggling to reform his clergy and recover lands, privileges and prestige in his diocese, he was experiencing conflict with the very forces which had advanced him. Peiresc's death, in 1637, coincided with a big upturn of royal intervention and taxation; and he found the dual threat to the privileges of Provence, and of the Provencal Church, disturbing. His close association, from this date, with dignitaries like the Governor of Provence, who was soon to be at daggers drawn with the parlement—Gassendi's old patrons; or the Cardinal Archbishop of Lyons, Primate of France; and Fr. Yvan—the saintly but fanatical preacher—coincided with a new tone in his writings. His former stridency against Aristotelian scholasticism was replaced by a series of concessions, creating the contradictory and eclectic harmonisation of the Syntagma Philosophicum. His role in the opposition to Richelieu's taxation of the Church is analysed in Absolutism. But Bloch is right to observe that it marks an important stage in this evolution—an evolution which was not a conversion, following doubts about his own scepticism, but rather an awareness that Campanella was right. More was owing to his persona as...
theologian and Christian than he had once thought. Although he kept up all his old relations with the **libertine**, with greater ease now that he was in Paris, his intimate relationship with the governor of Provence—largely maintained by letter—and with Fr. Mersenne brought a more serious element into his view of religion.

It has been said that De Valois' prose is an exquisite example of baroque religious sensibility, similar to the poetry of his Spanish contemporary Quevedo. Quevedo, in the Spanish secret service, was identified with the aristocratic, conservative party which lay behind the plot to seize Venice: stronghold of the anti-clerical, sceptical and scientifically minded **élite**. Many of the **parlement** of Provence, reflected a similar attitude; and Gaultier and Peiresc had close relations with Venetian intellectuals, such as Sarpi and Galileo. Fr. Mersenne emphasised the importance of religion as a bond of public order; a theory which seemed conclusive to those who noted that increasing popular violence and disorder in France had been paralleled by the rise of scepticism or **libertinage**. Fr. Mersenne himself was very close to De Valois; four of his major scientific works were dedicated to the governor of Provence and partly financed by him. Mersenne visited Aix on his way to Italy in 1644, and De Valois furnished him the means for conducting various ballistic experiments with artillery, just as he had lent Gassendi the galley four years before. Mersenne's convent, the Minimes in the Place Royale at Paris, was considered to belong to the Valois family; the heart of De Valois' elder brother was buried there in 1625, his father's body in 1651; it had been established by the Valois line. Fr. Côte, another minime, dedicated his biography of Mersenne, published in 1649, to De Valois; and also the revised edition of 1651. This is all the more significant because the **Fronde** (which broke out in 1648) had made De Valois a focus of hope for the opposition to Mazarin. Most of Gassendi's close friends among the sceptics, such as Naudé, La Mothe Le Vayer and Cyrano de Bergerac, adhered to their principles of
Machiavellian raison d'état and acted as apologists for Cardinal Mazarin. The sincerity of Gassendi's attachment to De Valois is attested by his letter to Sorbière, after his death; and transcended the undoubted material benefits of his patronage. The new direction in Gassendi's thinking is confirmed by his residence in the Hôtel of Montmor, a senior member of the ultra-Catholic secret society the Compagnie du Saint Sacrement; which had powerful connexions among the higher nobility, from 1652 until his death.

Gassendi's concept of Catholicism would therefore seem to approximate closely to that of the Grand Inquisitor in Dostoevsky's *Brothers Karamazov*. Mystery, miracle and authority for the simple but grossly materialistic multitude (hence his reluctance to criticise such popular extravagancies as the processions, the legend of the Marys or the exorcisms at Pourrières) were the only way to secure an orderly existence for the élite, such as himself. They might enjoy discreetly the delights of free-thinking, science and scholarship. Hence his distinction of mankind into 'the golden spirits'; the philosophers; and those 'greedy for gold'—the overwhelming majority. Although he rejected Plato's republic as unattainable in practice, he was full of enthusiasm for it as an ideal, and seems to have taken Plato's suggested mythology—that the Guardians pretend they were formed from gold and the multitude from copper—literally. It is tempting to speculate how far Gassendi's interest in genetics, his association of the phenomena of recessive genes with the combinations of molecules forming the semina, which developed in the 1630s, may have led him to sympathise more than he had previously with the ideal of a hereditary nobility. The idea that virtue and nobility were indissoluble was very strong in the Middle Ages; but in seventeenth-century France it was eroded by the thesis that 'noble birth is nothing without virtue', linked with the growing dominance of the robe and the decline of the provincial nobility. Gassendi always held strongly to the idea of an invisible republic of
'golden minds', based not on birth but on some arbitrary election; but whereas in the 1620s it was linked with new opportunities available to the legal and professional classes, by the 1640s it was leaning towards the traditional elitism of the old ruling class.

Fr. Mersenne strongly condemned the politique, who preached that religion was a benign imposture by the élite to keep the mob in order. But La Mothe Le Vayer, Naudé and Hobbes, who were his intimate friends — even contributing sections of his books — all held a politique view. And indeed the opinions expressed by Mersenne himself are so close to the cynicism he denounced as to be divided only by a hair. He argued that God had instituted pagan religions to keep non-Christians in civil order; because even a lie was preferable to anarchy. Mersenne's God is himself a politique absolute monarch; somewhere to the right of the Grand Turk on the scale of ruthlessness. It was a commonplace of apologetic to write that kings were in the image of God; but only Mersenne reversed the comparison and declared God was 'absolute monarch of the universe', as unlimited as the pagan Roman Emperors; not bound to give reason for any of his acts. Hell served the same function in the cosmos as the dungeons or galleys of the French monarch. Gassendi wrote in similar terms, comparing angels and demons to the intermediary officers which the king used to govern his people; Mersenne adding that the analogy between court officials, practising judicial torture, and demons was particularly close.

Whether or not Mersenne or Gassendi actually believed in this 'hangman God' it is evident that someone who was a sincere politique (that is, not a social revolutionary) would be unwilling to undermine religion by open scepticism. It was a point which Swift made about the writings of Shaftesbury and Mandeville. If, as they claimed, they sincerely believed that religion was just a trick to secure obedience to the social order among the masses, they were guilty of inciting people
to rebellion by publishing their ideas:

'The people among whom such books are published wonder how it comes to pass that the civil magistrate daily loseth his authority, the laws are trampled upon and the subject in constant fear of being robbed, murdered or having the house burnt over his head.'

That Gassendi was not a social revolutionary is evident at many points in his writings. To take one small but significant example: he lamented the decline of parental authority in France and the insolence of children. Whilst he did not go as far as Jean Bodin, a sceptic who wished to restore old Roman rights of life and death to parents, he felt that the social order was intimately bound up with respect for parents, strict religious observance, respect for elders and the privileged classes. For Gassendi religion, and its associated pieties, were the only way a State could maintain public order without the use of force; or repressive violence on a despotic scale. And he saw the French State under Richelieu and Mazarin, relying increasingly at home and abroad on naked force to secure its position. Since force required an army—an army needed increased taxation, and increased taxation led to poverty, crime and revolt—absolutism seemed to him locked into a destructive spiral. The concept of natural law, which he had rejected in favour of Montaigne's moral relativism in the heady 1620s, returned as the sole guarantor of the people against rulers 'who treat them like cattle'.

The significance of restoring a non-material 'rational soul' to man, in the 1640s was partly in distancing the human cattle from the animal; whereas the whole tendency of his philosophy up to 1642 had been to minimise the distinction between the two. The Syntagma stressed that irreligion was a most potent solvent of social traditions (mutationem rerum) and urged upon the King and all magistrates to spread respect for the divine name and fear of God everywhere, as the best guarantor of the laws. Gassendi's free-thought, like that of Stephen Daedalus, appeared horrible, even to himself; and was limited
by his service to two masters — the Roman Catholic Church and the French state in Provence. Distrust of the latter strengthened his loyalty to the former.

Examination of his thought in the context of French society confirms Pintard's view that Gassendi had two philosophies; if the end product appears an eclectic chaos it was because he himself deliberately murdered his sceptical doppelgänger.154 This was an interpretation which Cyrano de Bergerac suggested when he attributed all sorts of atheism and impiety to an extraterrestrial being who claimed to have formerly been Gassendi's 'demon'. This character had left Gassendi somewhere around 1648 — the date of the decision to publish the *Animadversiones*. 155 Bergerac's fantasy has been indignantly dismissed as fiction; but it is indirectly confirmed by Gassendi's own analysis of the Socratic 'demon'. Denying its supernatural character, he argued that the voice was an expression of the philosopher's own higher consciousness; an awareness of which can be heightened by sobriety and study. And he argues that this is what Homer intended to portray when he made the goddess Minerva the councillor of Ulysses. 156

Gassendi and Peiresc were the first serious students of the Greek text of Homer in France, and Ulysses brings us back to the relationship between Joyce and Gassendi, suggested in the quotation from *Ulysses* which is the epigraph to this chapter. Both Joyce and Gassendi admired him as the man of many stratagems, rather than the warrior. Gassendi took for his motto *sapere aude*, which comes from Horace's ode in which Ulysses is presented as the model for the scholar, rather than the mariner; and true wisdom is equated with persistence, daring and cunning.157 There is certainly an analogy, discounting the variables of time and space, between the young Joyce's relationship to the Catholic Church in Ireland at the turn of the century, the Aristotelian scholasticism of University College, Dublin, and Gassendi's position at Aix in the 1620s. Even, one suspects, the
portraits of libertinism, which Joyce gives us among Dublin medical students, lawyers and petty officials were not so far removed from what went on in the circles of Luillier and Patin in Paris. Suppose that Joyce had not left Ireland, he would have been required to dissimulate in order to survive and *Ulysses* would certainly not have assumed its present form. By opting to remain in France, as a Catholic priest, Gassendi chose to operate permanently on two different levels; a decision which he must have known would be fatal to his consistency as a philosopher.  

But, unlike Joyce, Gassendi was not obsessed with his own reputation or the need to immortalise his work. On the contrary, he foresaw the dangers which scepticism might pose to humanity. Without the restraints of the supernatural, pure Epicurean man would be subject to 'the motion of those twin opposing *signa*, to grab and to escape (cupiditas atque fuga) by which the whole machine is driven.' Gassendi's Catholicism was not the result of his doubts about the Hobbesian vision of man's egoism; but doubts about whether a worthwhile political order would be secured by self-preservation alone, independent of religion. For Gassendi it was Christianity which formed the best guarantee of the maintenance of social degree (*gradus*) from the summit to the base.
GASSENDI AND THE CHURCH: The Limits of Scepticism


2. Ms. FR 12270 Bibliothèque Nationale f.23 summary of Gassendi's life by his secretary La Potherie.

3. La Potherie (above) asserts that he was ordained in 1616, but Sorbière writes: 'It was therefore at this time (1622) that he bent his neck to the yoke of the priesthood and took on Holy Orders.' The accounts can be reconciled if we suppose 'ordained' to refer to the Order of Deacons.


6. M. Isnard Essai historique sur le chapitre de Digne et sur Pierre Gassendi, Digne 1915 p.116: one tower of the building was actually demolished and although the episode took place in broad daylight and in the city centre 'il ne se trouva personne qui voulut déposer'.

7. This is the work mentioned in note 4. It was published in 1624 at Grenoble.

8. Haitze Histoire de la Ville d'Aix 1886-91 (composed in 1660s). O.O. (IV) pp.63-100. He gives a number of examples of actions by the parlement, or its prominent members, which were anti-clerical, not just anti-Jesuit. In 1620 the transfer of the College to the Jesuits was forbidden by the parlement's decree.


10. Not founded until the late fifteenth century, by René of Anjou, it failed to thrive and was re-founded by Henri IV in 1603. Its strongest faculty was law, in view of Aix's domination by the sovereign courts, and in 1618 there had been an unsuccessful bid to turn it into a law school. It was funded by the salt tax, which also paid the salaries of all government officials, mostly lawyers.


R. Bonney The King's Debts 1981 pp.93-106 The Ministry of Luynes has only recently surfaced from total obscurity in historical studies. Its importance for Gassendi was that Peiresc was in Paris, as Du Vair's secretary, during this time and made many connexions there, later useful to Gassendi.


16. Bougerel Vie de Gassendi 1737 p.10 Morin later became Gassendi's bitter enemy.

17. O.O. (III)98-99 'praefatio' ExP.

19 S. Drake _Galileo at Work_ 1978 p.287

20 'Those who defend all the nonsense are like the Jesuits', he wrote in 1598, though Jesuits protected him from the effects of persecution in Austria.


22 O.O. V _Vita Peiresci_ pp.248-254 for his stay in Italy and C. Rizza _Peiresci e Italia_ 1965 for correspondence.

23 Letters in Aix Méjanès ms.1025 f.250-78.

24 The phrase occurs in O.O.(I) Sorbière and in Huitzé's ms. history and is meant to express the social, as well as the intellectual, pit from which Gassendi had been rescued by his parlement patrons.

25 Du Vair and Peiresc were both convinced that Gaufridi was a wizard and played a leading part in his trial. But Peiresc and a number of other magistrates later had doubts. Gassendi implied in the _Vita Peiresci_ that he had always been sceptical of the charges.

26 Aix Méjanès ms.1056 f.251 Gaultier to Peiresc.

27 F. Bernier _Abrégé de la Philosophie de Gassendi_ 1674-8 and _Travels in the Mogul Empire_ 1934 a translation of his _Voyages_ 1710.

28 Aix Méjanès ms.1056 f.252. He was so contemptuous of what he called the 'phantastique (à mon avis) imaginations' of the hermetic school that he thought Fr. Mersenne and Gassendi were wasting their time even bothering to refute Francis Yates' hero Fludd, whose ideas, since they were indemonstrable, would fall of themselves. He believed such philosophers were best left to themselves to 'give them a chance to purge their brains of such chemical, theological and physical fumes'.

29 D'Oppeda, the First President, and De Cormis, the Advocate General, its two most eminent officials, were among them. I have not been able to identify the canon, but it was an unwritten law that to be a canon of Saint Sauveur it was necessary to be related to a member of the sovereign courts.


31 O.O.(I) Sorbière.

32 Spink _French Free-Thought from Gassendi to Voltaire_ 1960 pp.30-42.

33 See chapter FRIENDSHIP

34 Article 'D'Aubray, Dreux' _Dictionnaire de Biographie_, Paris 1941(IV).

35 Aix Méjanès ms.1023 f.705-10

36 R. Mousnier _Assassination of Henri IV_ p.161

37 Writing to his north African correspondent for minute details of native beliefs he wrote: 'Il importe de faire voir jusques ou peut aller leur simplices et crédulité,' _Lettres de Peiresc_ (VII) to D'Arcos Sept. 1630 letter XLVII.
38 Peiresc could even write of his good friend and natural scientist Fr. Mersenne: 'Monks do not credit easily what is contrary to their opinion, although they are only too capable of too much credulity.' Correspondence de Mersenne (V) ed. Tannery and Waard letter 427 (25)


40 The best work remains L. Pastor History of the Popes 1938 f.50

41 S. Drake Galileo at Work pp.287-91


43 Rizza Peiresc e Italia p.188 Dal Pozzo patronised the French artist Poussin.

44 Bibliothèque de l'École des Beaux Arts ms.592 (anc 401) 'Journal de Voyage J. J. Bouchard à Rome et à Naples' e.g. f.211-12 f.219-20, Bouchard was secretary to Francesco Barberini. When he died his scandalous diaries were preserved by Dal Pozzo.


46 A good recent example: J. Salmon Society in Crisis 1975 rejects Montaigne's analysis of the religious wars in terms of secular motives on the grounds (p.127) that 'observations of this sort are incapable of statistical demonstration'.

47 T. Carlyle Oliver Cromwell's Letters and Speeches 1849 'Our common spiritual notions, if any notion of ours deserves to be called spiritual, are fatal to a right understanding of that seventeenth century. The Christian Doctrines which then dwelt alive in every heart, have now in a manner died out of all hearts—very mournful to behold and are not the guidance of this world any more. The old names and similitudes of belief still circulate from tongue to tongue but suggest things not august and divine but hypocritical, pitiable, detestable. Here properly lies the great unintelligibility of the Seventeenth Century for us.' p.4.

48 O. O. (III) p.101

49 Prof. Rochot has argued that they did not arouse controversy and that lack of interest in vols. i and 2 explains why they had no sequel; Les Travaux de Gassendi sur Epicure 1944 pp.9-17 O. Bloch La Philosophie de Gassendi 1971 p.234 rejects this view. It is part of Rochot's campaign to white-wash Gassendi and turn him into a somewhat limp standard bearer of intellectual and religious orthodoxy.

50 Op cit p.101


52 This valuable point is made by O. Bloch La Philosophie de Gassendi pp.293-300 in one of the most perceptive analyses of Gassendi's beliefs.

53 Marx Differenz der demokritischen un epikureischen Naturphilosophie Jena 1841 p.27

'Gassendi (der den Epikur aus dem Interdikt befreite, mit dem die Kirchenväter und das ganze Mittelalter, die Zeit der realiserten
Unvernunft, ihn belegt hatten) sucht Epikur mit der Kirche zu akkommodieren. Es ist, als wollte man der griechischen Lais einen christlichen Nonnenkirtel um den blühenden Leib werfen.

54. O. O. (II) pp. 661-2. Gassendi distinguishes between the eternal beatitude, described by the Fathers of the Church, which is beyond our conception because perfect and absolute, and the common imagination of happiness in which, in this life, all our wants are satisfied. In his Ethics he discusses the latter, as the true Epicurean conception, whilst maintaining that our ultimate goal must be the first.

55. J. de Voragine Golden Legend 'Life of Mary Magdalene' p. 73 dates from the thirteenth century. There is an earlier version by Rabanus, Archbishop of Mainz (776-856) a singular modern defence of the historical truth of the legend is contained in The Holy Blood and the Holy Grail 1982 Baigent, Leigh, Lincoln.

56. See relevant entries in Guide de la Provence Mystérieuse 1965.

57. Discours des Arcs de Triomphe, Aix 1624; the official purpose of the visit was a thanksgiving for crushing the hydra of Protestantism in the war of 1620-1.


60. Lettres Familières ed. Rochot p. 104.

61. Op cit p. 104. He regrets the 'mille moyens de plaisir de Paris'.

62. F. Sassen De reis van Pierre Gassendi in Nederlanden, Royal Dutch Academy t. 23 n. 10 (1960)

63. V. Reiboul, 'Mémoires' Archives de Saint Maximin p. 88.

64. Haitze 'Gouvernement de M. le Comte D'Alais' ms. Aix Méjanès 37 f. 60 Haitze stresses that Gassendi was there 'to verify the authenticity of the miracle', and the Dominican Reiboul that 'he saw and approved it'.

65. J. Launay De Commentatio Lazari, Maximini, Magdalenae at Marthae. 1641 reprinted in Opera Omnia (II) Paris 1731.

66. Revue d'Histoire des Sciences 1953 (VI). When De Launay wrote: 'He has left time but not life for he will live forever', he was thinking neither of vulgar fame nor Christian immortality.

67. O. O (V) Lives of great astronomers. His Vita Peiresckii is the best but even in the nineteenth century his life of Copernicus was used as a primary source.

68. Lettres de Peiresc op cit (I) p. 336. Peiresc to DuPuy 1627 condemns 'une moindre bien goffement suppose pour donner credit à la tradition du voyage de St.Jacques en Espagne'.


70. L. Pastor History of the Popes op cit p. 429. 'The Cardinal was planning a further extortion of money from the clergy towards whose rights and privileges he adapted, in the opinion of his entourage,
"a very peculiar theology", as he did in fact in many other respects ... anxious to secure the so-called Gallican liberties curtailing ecclesiastical prerogatives of the Pope as much as possible.'

72 Haitze ms. Aix Méesanes 37 f.280.
73 Bouchard Bibliothèque Nationale ms fr 4236 f.57.
74 Voltaire Oeuvres XIX p.116
75 O.0. (VI) p.415b 1633.
76 Lettres Familière ed. Rochot pp.55 and 64.
77 H. Brémond La Provence Mystique au XVIIe siècle 1908 pp.42-5.
78 R. Popkin History of Scepticism from Erasmus to Descartes 1960 p.99.
79 Lettres de Peiresc (IV) p.190.
80 O.0. (III) p.116; (I) p.5a
81 Garasse La Doctrine Curieuse des Beaux Éprits de ce Temps Paris 1623.
82 Pastor History of the Popes p.91 Richelieu was convinced that Garasse was the author of anonymous pamphlets against him and was behind his condemnation.
83 Quoted in Spink Gassendi to Voltaire op cit. pp.10-11
84 Pintard Libertinage Erudit p.521.
85 Lettres Familières ed. Rochot p.41.
86 Decline and Fall of the Roman Empire chapter XXII-V Gibbon was an admirer of Gassendi, calling him 'le meilleur littérature des philosophes, le meilleur philosophe des littératures'. J. Wand History of the Early Church 1937 p.170.
87 Newman defined liberalism in religion as 'the doctrine that there is no positive truth in religion', J. H. Newman C. Dessain 1966.
88 Bougerel Vie de Gassendi 1737 p.431.
89 O.0. (VI) pp.19-24 This letter is, as far as I know, the first modern defence of vegetarianism.
91 O.0. (II) pp.729-32; Gassendi also quotes him on Justice and Logic.
93 O.0. (I) pp.11-13.
94 S. Piggott The Druids 1968 pp.120-2 Gassendi held that animals have souls; see GASSENDI ON LIFE AND SOULS. There was a revival of Druidism in 17C France; pp.133-5 op cit.
95 Virgil Aenid VI.105 Omnia praecedit, atque animo necum ante pererit, reincarnation scene is VI.721-5.
96 Julian Loeb ed. To the Sun (III) p.61.
97 Cyrano de Bergerac Histoire Comique des États et Empires du Soleil.
98 Spink Gassendi to Voltaire pp.66-8. It is the Theophrastus Redivivus written in Latin around 1659 'O sol omnipotens, mundi anima, mundi vis, mundi lux'.
Charron, *La Sagesse*, Paris 1622, p. 341. He believes that Christianity, with its God appeased by human suffering, can learn from Pythagorean sun worship 'a more natural and less reverend approach'.

Rizza, *Peiresc e Italia*, p. 240

Bibliothèque Nationale, MS 32605 f. 390. They were taught by their first king 'qu’en ce bel astre residait la divinité et le souverain bien infini, immense, inalterable eternel'.

O. O. (I) p. 12 he cites American examples as further evidence of its universality.

R. Wallis, *Neo-Platonism*, p. 134; Julian Loeb (I) p. 40. The doctrine was that nature is organized in triplicities e.g.: the universal, the idea of the universal, the visible image of the idea.

O. Bloch has noted that a triplicity is the key to understanding Gassendi's theory of perception, *La Philosophie de Gassendi*, pp. 17-18; H. Jones, *Pierre Gassendi's Institutio Logica*, 1981, pp. 8-9 contains text and translation.


Ibid, pp. 335-345.


See GASSENDI AND ABSOLUTE MONARCHY: Bloch notes that in the 1620s his patrons were all lawyers but by 1650 they came from the higher nobility and clergy. *Philosophie de Gassendi*, p. 490.


Ibid, pp. 322-3. Patin was opposed to all innovators and reformers in medicine, great and small, from Theophraste Renaudot to Harvey. See G. Sarton, *Six Wings*, 1957, p. 182.

0.0. (VI) p. 3. The Bishop of Vaison, J. M. Suarez, had been an old friend of Peiresc and had patronized such notorious free-thinkers as Bourdelot. Suarez' work on Roman antiquity, favourably cited by Gibbon, was the first to suggest that the fanaticism of Christians, as much as the greed of the barbarians, was the cause of the present appearance of the Colosseum at Rome and similar monuments in Provence. Private scepticism/public orthodoxy was a formula acceptable to a number of bishops promoted by the Barberinis. Suarez appears to have been one of them. See Pintard, *Libertinage Erudit*, pp. 220-41; Gibbon, *Decline and Fall* ed. Milman, p. 1030.

0.0. (VI) p. 323.


'If I may speak frankly I seem to have held before myself the promise of the age of Marcus Aurelius ... I shall philosophise in tune with those who lived in a better century and whose minds were filled with gold rather than the lust for gold.' Gibbon concluded his account of the reign of Marcus Aurelius: 'If a man were called to fix the period in the history of the world during which the condition of the human race was most happy and prosperous he would, without hesitation, name that which elapsed from the death of Domitian to the accession of Commodus ... the golden age of Trajan and the Antonines.' *Decline and Fall* op cit p. 56. See also Francis Bacon.
Gassendi's argument (II p. 633) was:

1. We expect eternal rewards and punishments.
2. God is just.
3. Therefore he will not disappoint our expectations in (1).

Exactly the same argument is found in Mersenne to prove the existence of God in his *Questiones in Genesis* 1623:

1. Man desires happiness.
2. Therefore, a God must exist to satisfy it.

This proof, along with the thirty-five others offered (pp.10-122), seems even less convincing than Gassendi's. Fr. Lenoble Mersenne... 2nd ed. 1971 is forced to fall back on the assumption of Mersenne's "naivety" (p.255) in order to defend his sincerity.

122 Gassendi's argument (II p.633) was:

1. We expect eternal rewards and punishments.
2. God is just.
3. Therefore he will not disappoint our expectations in (1).

Exactly the same argument is found in Mersenne to prove the existence of God in his *Questiones in Genesis* 1623:

1. Man desires happiness.
2. Therefore, a God must exist to satisfy it.

This proof, along with the thirty-five others offered (pp.10-122), seems even less convincing than Gassendi's. Fr. Lenoble Mersenne... 2nd ed. 1971 is forced to fall back on the assumption of Mersenne's "naivety" (p.255) in order to defend his sincerity.

123 Op cit Mersenne p.419.

124 Revue d'Histoire des Sciences IV 1953 p.125 Le Cas Gassendi

125 C.0. (VI) 55b.

126 C.0. (VI) 2a: He was discussing the Jesuit takeover at Aix University in 1622 with an anti-clerical *parlementaire* and intellectual who had been passed over for the Presidency of the Aix *Parlement* by the pro-Jesuit, pro-Spanish faction of Marie de Medici.

127 Julian Works Loeb I p.366; in III p.117 he denounces Christian lecturers as 'hucksters'; an accusation echoed by Gassendi (VI 2a): "Truth lies not with the scholastics but with the ancients; at least with those who were "aurum infuso non auri cupiditas"." He had certainly read Julian by this time.
128 'A lion may conceal itself under the skin of an ass', quoted in Gibbon.

129 Lettres Familieres à Francis Luillier ed. Rochot p.37. "Il y a quelque petite contrainte en l'assidue assistance que je rends aux offices de notre eglise. Je me rend toutes ses actions exterieures comme naturelles." Rochot professes to find such remarks a proof of great piety. I hope the perspective provided above will dispel such mists.


131 'Mundus universus exercet histrionam'—Gassendi uses the phrase again in connexion with scholastic philosophy in his dedication of the Exercitationes to Prior Gautier recalling their 'happy times in the sunny fields and olive groves round Aix, when we would mock the universal comedy, which consciously or unaware, this world plays.' O.O.(III) p.104.

132 M. Casaubon Credulity and Incredulity in Things Natural 1668 p.224. See also Credulity and Incredulity in Things Divine 1670 pp.38, 107, 143-8, 555-6. Casaubon shrewdly links an attack on Julian the Apostate (pp.3-8) with these criticisms of Gassendi.

133 Sortais op cit n.123 p.39 Fabri's book, published in 1673, was in response to attacks similar to Casaubon's from all parts of Europe, cf. F. Borkenau Der Übergang Von Feudalism Zum Bürgerlicher Weltbild p.391.


135 O.O.(VI) pp.216, 256, 339b—all letters to De Valois.

136 O.O.(III)pp.108-9, 170-2 .La Mothe Le Vayer regarded scepticism as the best defence of Catholicism.

137 O. Bloch La Philosophie de Gassendi pp.488-92.

138 Hess Pierre Gassendi pp.70-2 'zum vollenden Ausdruck des christlich tragischen Lebensgefühls des Barock en France.' A. R. Chandler A New History of Spanish Literature 1961 on Quevedo 'melancholy, disillusionment, life is a dream... he embodies as nearly as anyone can, the spirit of the baroque'. pp.323-4. For his role as a Spanish agent see N.C.M.H. IV p.275.

139 See Rizza Peiresc e Italia passim.

140 Lenoble Mersenne... p.270.

141 B. Porchnev Soulevements Populaires... 1623-48 1963 p.572 argues that absolutism can only be understood as a response to the collapse of a moral, political and religious justification for authority from 1560. My research confirms this analysis. It is also Rabb's thesis in Struggle for Stability in Early Modern Europe 1975 e.g. pp. 80 and 37-40.

142 H. de Coste Vie du R. P. Marin Mersenne 1649 p.70. The books dedicated to him were:

- Harmonie Universelle 1636
- Observations Physico-Mathematica 1644
- Abrége de la Geometrie Universelle 1646
- Optique 1649

Lenoble Mersenne... p.51 and VI 353b De Valois to Gassendi for ballistics. Lenoble p.19 on Minimes and the Valois line. Fr. de Coste, dedicating the second edition, calls it simply: 'your convent'.
143 N. Keohane Philosophy and the State in France 1980 pp.171-4, 229 seq.
144 Pintard Libertinage Érudit pp.403-4. Despite his membership of the Compagnie, Montmor seems to have been sympathetic to libertinage. This adds colour to the suggestion (op cit n.55) that the Compagnie's secret directors were not Christians at all. This would explain why Louis XIV suppressed it in 1666. The Compagnie was strong in Marseilles in the 1640s and another friend of Gassendi and De Valois—Bishop Godeau of Vence—was an active member.

145 0.0. (II) pp.755-6 He seems to have confused More's communistic Utopia with the community of property which Plato confined to the guardians.

146 0.0. (II) pp.283b-5b This would justify such flowers of rhetoric as comparing De Valois to his grandfather, King Charles IX, O.0. VI 97b

147 Murray Reason and Society in the Middle Ages 1978
R. Mousnier Fureurs Paysannes 1967 pp.26-33

148 Mersenne Impieté des Déistes... 1625 pp.174-5 The Déist in the dialogue claims that 'certain golden spirits' (note Gassendi's phrase) persuaded him religion was but to keep the mob obedient. The priest answers: 'Your golden spirits have the same religion as pigs and cattle.' Lenoble Mersenne ... pp.267-70 is startled by the crudity of Mersenne's picture of a God who is pure 'ego' discarnate; obliged to take no account of anyone's interest but his own, whose true image is the deified Caesar's and who 'coerces the pagans by superstition'. Mersenne even goes so far as to justify the existence of eternal punishment because of its analogy with the practice of earthly monarchs.

149 Animadversiones... 1649 p.1657 In view of De Valois' relations with the parlement, I am quite sure that Gassendi's: 'The world is God's kingdom; angels and devils the magistrates who are his delegated intermediaries with the people.' was deliberate irony. Mersenne Impieté des Déistes pp.584-5 furnished him with the idea.

Gassendi's awareness of the danger of unbelief for public order was probably stimulated by Mersenne. The inhumanity of Mersenne's view should be contrasted with a very similar statement by St. John the Almoner—a contemporary of those Roman despots whom Mersenne found divine. 'My blood chills at the thought of those wild beasts who may torment me in the next life—fierce as tax collectors.' See Fawes and Baynes Three Byzantine Saints 1948 pp.248-9. St John's simple statement is a touchstone of the sincerity of Gassendi and Mersenne. Proving the existence of hell from an earthly ruler's right to torment his subjects unjustly is very different from using human injustice to help imagine what goes on in hell.

150 D. Walker The Decline of Hell 1964 p.175

151 J. Bodin Demomanie 1580 II p.79; Six Livres de La République 1577

Gassendi Animadversiones...1649 P.1455 'If yesterday parents abused their authority, today it is the children's turn to abuse their parents.' See P. Ariès Centuries of Childhood 1962 pp.260-1. He notes 'A growing enthusiasm in the fifteenth and sixteenth centuries for corporal punishment; people of quality escaped it; children of all classes did not. In the seventeenth century this repressive ardour cooled down somewhat.' See also PROVENCE: Religion
152 0.0. (II) 757a, 800b for his volte-face on the matter see Pintard Libertinage Erudit pp.480-1; for his remarkably outspoken critique (in Latin) of absolutism see 0.0. (II) 762 and (in English) Philosophy of Gassendus 1697 p.232 ed. Bernier.

153 0.0. (II) 760a

154 Pintard Libertinage Erudit pp.476-504

155 Cyrano de Bergerac Voyage dans la Lune et Histoire Comique des États et Empires du Soleil (written circa 1650) ed. de Spens 1963 pp.54 and 88-96.

156 Animadversiones...1649 pp.1661-7 This belief would sufficiently account for the undoubted austerity of Gassendi's life and the purity of his conduct.

157 Horace Epistularum 1 (2) lines 1-40 Homer Odyssey line 1

158 Such libertinism is a parasitical plant rooted in Catholic orthodoxy.

159 0.0. VI p.36 He planned to leave for an indefinite stay in the Ottoman Empire in November 1630 but changed his mind. It is not clear why.

160 0.0. 11494-5 Pascal's use of the term 'machine' has been supposed to refer to the philosophy of Descartes. But, unlike Descartes, Pascal applies it to man; which is exactly its sense in Gassendist psychology; cf. Œuvres du Seuil p.503a

161 0.0. VI p.249a Gassendi wrote to Sorbière about Hobbes' De Cive: 'I see many ardently desire a copy and cannot obtain one and it is certainly not fit for the vulgar; it is a grain to be chafed in the hands of all who have the higher knowledge; neither, if I will discard what injures religion, for he is heterodox [using Greek], do I know a writer who has argued this point more profoundly than he.' He goes on to express his eagerness to 'extort' more of Hobbe's work from him and concludes: 'I, more than any other philosopher, know important it is to be free from prejudices; if we would discourse about our scrutiny of the inward nature of things.'

Mersenne seems to have had none of Gassendi's reservations about Hobbes, falling into wrong hands. Mersenne op cit p.52 'A royal command' should force him to publish. 'De Cive should be printed in letters of gold.' The eulogy of Hobbes in Sorbière Traduction de Hobbes 1649 suivie de lettres de Gassendi et Mersenne seems hard to reconcile with the simple piety attributed to Mersenne.

162 Animadversiones...p.1455 There is another hint of irony here, where Gassendi writes: 'Christianity has outlawed antique slavery, with its powers of life and death vested in the master... but guarantees that wife, children and servants are a man's legitimate possessions.' As he was well aware, the slavery on the galleys in Provence was every bit as brutal as classical slavery; but the felons were legally freemen. Moreover, he knew Mlle. de Scudéry and frequented the Hotel Rambouillet; so that he must have been familiar with her view that proprietorial marriage was itself considered 'slavery' for women and that the laws which sanctioned it were unjust; so that marriage contracts should be made on a basis of equality (permitting divorce by either party). See J. C. Tournand Introduction à la Vie Littéraire du XVIIe siècle 1970 pp.67-8.
GASSENDI AND ABSOLUTE MONARCHY

1) The Secret
2) The Sword of Caesar
3) The Clever Fellows
4) Science and Cannibalism

'We have corrected your great work and have based it on miracle, mystery and authority. And men rejoiced that they were once more like sheep, because your terrible gift of freedom had at last been lifted from their hearts. We are not with you but with him—that is our secret. We have taken the sword of Caesar, and therefore follow him not you. Oh...many more centuries are yet to pass of the excesses of their free mind, of their science and cannibalism, for having begun to build their tower of Babel without the Church they will end with cannibalism. Then they will come crawling back for absolution and be happy; except for we who guard the mystery. We keep our secret and entice them with the reward of heaven and eternity. But even if there were anything in the next world, it would not be for such as them. I too was in the wilderness, feeding upon locusts, roots and freedom. But I awoke and refused to serve a madness. I joined the ones who had corrected your work. So, tomorrow, you must burn.'

Grand Inquisitor of Seville, circa 1500, to Jesus Christ.

'But there would never be such a fantastic person as this Inquisitor.'

'He doesn't believe in God, that's all his secret.'

'Let us suppose that historically such a one existed: a man eager to mortify his flesh, to become perfect and free... who saw that millions of God's creatures had been created as a mockery. They would never be able to cope with freedom. The great artificer had not in mind such boobies when he dreamt of harmony. Realising that he turned and joined—the clever fellows. Isn't it possible?'

Dostoevsky The Brothers Karamazov 1880
i) THE SECRET

Although the unity of scientific and social experience has been a truism since the time of Pythagoras, it was reserved to the twentieth century to discover that science and general culture were more conveniently accommodated in hermetic compartments. In every previous age they were bound together by powerful, if unseen, threads. Aristote wrote that the difference in philosophical method between the pre-Socratics and himself was that they used the tactics of the Homeric heroes, and he deployed the Macedonian phalanx. Writing in what is now regarded as the Dark Age of Whiggery, Lecky asserted that it was impossible to lay down a railway track without creating an intellectual influence. These views illustrate a fundamental continuity of approach to the relationship between science and society which lasted down to 1914. Since then there has been what T.S. Eliot called a 'dissociation of sensibility'; an inability or unwillingness to view different human experiences as part of a whole. This is particularly evident in the growth of academic specialisation and the treatment of pure science and the sociology of science as two distinct, or even hostile, disciplines.

Antoine Godeau was a libertin who became a model priest on being made a bishop and sent to Provence in 1639. He was a friend of Gassendi, an amateur of the new science, a passionate Copernican, a historian, poet, and political theorist. What was his attitude to the relationship of science and society? In his history of the Church, he saw the Middle Ages—the subject of his study—as a Dark Age for science and literature. In this, he was at one with Gassendi and most educated people of the day. The first century of the Roman
Empire, on the other hand, was an era of light and reason. Godeau coupled Galen and Ptolemy with the triumphs of Roman literature and the restoration of imperial authority in a single cultural unit. Nothing like it had been seen, according to Godeau, until the advent of absolutism in France. The appearance of the Académie Française and the new Copernican astronomy were movements with which Godeau was personally associated. Two points should arrest our attention. Godeau did not fall into the trap of despising Ptolemy, because he was a pagan or because the astronomers of his own age had discovered something better. He regarded excellence in government, science and literature as linked by an historical law.

Although Godeau was a model bishop, involved in many practical charities, his beliefs were closer to the Enlightenment than to the Counter-Reformation. Note the absence of the supernatural from his cultural analysis. He did not say that the birth of Christ caused the excellence of the first century; still less that the excellence of his own age implied the imminence of the second coming. He did not draw any conclusions from the triumph of Christianity during the intervening period when science, literature and government were in a less than satisfactory condition. His tone was one of scrupulous deference to clerical interests. But his sympathy with the age of Ptolemy, coupled with his indifference to scholasticism, speaks volumes.

Godeau's attitudes to the connexion between science, political order, and civilization, were similar to those of his friend Gassendi. Both related science and justice to a cyclical golden age that was out of phase with the history of Christianity. Gassendi identified the causes of the decadence (as he saw it) of medieval astronomy in the absence of interest in science among enlightened lay patrons. Without patronage, finance and long-term projects, a fragmentary and unreliable
observational record was inevitable. Gassendi did not attempt to account for this lack of interest by Christian rulers, during the medieval period; but he ventured onto risky terrain by noting that whenever such patronage was available it was Jewish or Arabic astronomers who predominated in taking advantage of it. From other passages, it is clear that Gassendi secretly sympathised with the view of Julian the Apostate, who regarded Christians—with their dogmatic claims to supernatural knowledge—as unfitted for a genuinely independent study of philosophy, literature or science. Gassendi argued that Christian astronomers were mainly concerned with saving the appearances, by eliminating as many discrepancies with scripture as possible; that Christian philosophers should benefit from the work of pagans, like Democritus, who wrote of atoms and evolution because he had never been privileged to receive revelations to the contrary. A double meaning is evident in Gassendi's reference to the 'invention' of astrology and astral cults by the Babylonian priesthood. This was an application of the contemporary doctrine of the libertin: that all religions were inventions made necessary by the ignorance of the multitude, who did not understand the need for a leisured class to pursue a higher culture.\footnote{Such attitudes were by no means confined to Gassendi's friends, like Naude and La Motte. As we have noted, an indifference to Christianity except as a means of social control was diffused well beyond libertin circles.\footnote{Bearing in mind the existence of this philosophy of religion, and the equation between the deceptions of the Babylonian and the Catholic priesthoods, made by contemporary Protestant intellectuals, it is surprising to find Gassendi applying this argument so publicly.}} There was nothing original about the conspiracy theory of religion. It was almost a commonplace by the mid-seventeenth century. Both Galileo and Campanella advanced the view that Moses knew all about
PROTECTORS AND MEMBERS OF THE COMPAGNIE DU SAINT SACREMENT ASSOCIATED WITH GASSENDI:

Duke of Angoulême, Grand Prior of Malta,
Louis de Valois (son of above)
Henriette, Countess of Alais (wife of above)
Marie-Madeleine, Duchess of Aiguillon,
Prince de Conti
J. Chapelain
Francois Malaval, quietist writer
A. Godeau, bishop of Vence and Grasse,
Fr Ivan, confessor to de Valois
Fr Joly, confessor to Gassendi
Fr Taxil, Gassendi's astronomical assistant
Fr P. de St Leger, astronomer
Fr Jean de Launay, historian
Habert de Montmor, banker
C. Bouthillier, patron of De Valois,
treasurer of France.

Gassendi was consulted by St Vincent de Paul
and met the artist Poussin and Sublet de Noyers in 1641.
modern science, but filled the Bible with primitive anthropomorphism instead, to hide the truth from the multitude and govern them better. Gassendi advanced an original and more sophisticated view of the origins of science by tacitly shelving this theory of a true, Mosaic science. Instead he related concept formation to social change. The two-tier universe was a 'poetic' cosmology, inspired by the model of a house and its roof; or by the custom of locating the rich in a temple on a mountain and the poor on the plain beneath. He connected the growth of a more sophisticated system, dividing fixed stars from planets, to the growth of trade. As merchants wandered from different latitudes they would see their star-horizon, previously regarded as fixed, to be purely relative. This was a clear anticipation of Vico's anthropology.9

It would be wrong to suppose that Gassendi was an isolated thinker. His history of astronomy was prefaced to a life of Brahe, dedicated to Habert de Montmor. Montmor was important for three reasons: along with Bishop Godeau, he was a founder-member of the Académie Française; again with Bishop Godeau, he was a leading member of a secret society, the Compagnie du Saint Sacrement; he was the founder of a scientific society, of which Gassendi was an informal president and which later became the royal Académie des Sciences. Although a practising Catholic, his Jewish ancestry and his libertin leanings meant that Montmor would be unlikely to take offence at the secular implications of Gassendi's sociology of science. As a Master of Requests—a rank which entitled him to be an intendant, if he so desired—and with an enormous fortune made from the Crown's mounting indebtedness Montmor's attitudes were those of the enlightened banker and bureaucrat who made French absolutism possible.10

In discussing the relationship between Gassendi's politics and his outward profession of Christianity, it will be useful to distinguish
two phases corresponding to his membership of two societies. From 1624 to 1640 Gassendi was associated with a circle of free-thinkers which he himself organised into a secret society, the Tetrad. This was a confidential discussion group for privately applying the principles of the new science to such forbidden areas as morality, government and religion. Although it contained no creative scientists, apart from Gassendi, its other three members were passionate amateurs of the new science. All rejected Christianity in private whilst conforming assiduously in public. All held senior government posts: Naude (Mazarin's librarian, propagandist and political adviser), La Mothe Le Vayer (tutor to Louis XIV and his brother), Eli Diodati (councillor in the Paris parlement and well known to historians of science as chief smuggler of letters and manuscripts for Galileo). 11

After 1640 Gassendi joined the very different organisation of the Compagnie du Saint Sacrement. 12 Unlike the Tetrad, of which only the four members are known, the Compagnie became a numerous organisation with its principal centre in Paris and a secondary organisation in Rome. Whereas the Tetrad's Christianity was largely cosmetic, as is evident from their literature, the Compagnie was fanatical. Their work for poor relief, popular education and the galley slaves was all done secretly; its social value is unquestioned. However, a question mark hangs over almost every aspect of the organisation. Why was secrecy so imperative? What was its role in the Fronde? Why was it suppressed by Mazarin and Louis XIV? Why did it never receive official recognition from any Pope, despite its powerful lobby in the Vatican? Why does a question mark hang over the Christianity of certain key members? Gassendi's association with the organisation clearly cannot be fully explained, when the answers to the above questions are not readily forthcoming. But the evidence suggests that, just as his association
with Tetrad was closely related to his original decision, around 1630, to draft an Epicurean physics, cosmology and morality, so his membership of the Compagnie dictated his partial return to the scholastic fold from the early 1640s.

Gassendi's remarks about medieval science and patronage indicate that he had grasped the importance of the State for science. In his inaugural lecture as Regius Professor of Mathematics in 1645 he hailed the child-king Louis XIV (aged eight) as the rebuilder of a Messianic temple of peace, through his (future) patronage of the sciences. It is tempting to dismiss this as preacher's rhetoric, if the same sentiments were not reiterated, in private correspondence, six years later. In the same letters Gassendi drew elaborate analogies between kingship and the sun, which Louis was to make his trade-mark. It is interesting, in view of Gassendi's total antipathy to Protestantism, to note his sympathy with political Utopianism — possibly linked to his relations with Samuel Hartlib. Gassendi's earliest thesis was on the theme of justice, though it has not survived. For him philosophical truth was indistinguishable from right living and scientific truth, since both pointed to Plato's reign of the philosopher-kings. He envisaged a relationship between the gradual dawn of a golden age of perfect justice and the slow emergence of truth in the natural sciences. He matched the imagery of constructing a man-made temple with a reference to the Temple of Nature in his court sermon to Louis XIV and had employed the same image, shortly before, in a private letter in the context of the millenial task of constructing a true astronomy. The importance of the temple imagery to Gassendi is underlined in a poem by Colletet, who compared Mersenne and Gassendi to 'two living columns of the temple, whose golden tongues utter that ancient knowledge which would otherwise have perished in the universal flood of the Dark Age.'
It should now be clear that Gassendi was thinking along the same lines as Bishop Godeau. True science and true justice related structurally, as parts of a common building. Though history chronicled delays in construction, or spectacular demolition, in the long run they rose and fell together. Although he was not a determinist, the idea of law lent a kind of inevitability to this process. For Gassendi, justice was not the ordering of society by geometrical and arithmetical ratio, as it had been for Aristotle, Bodin and Kepler. Nor was nature ordered by the teleology of the four elements or natural place. Laws, for Gassendi, governed the ordering of the atoms according to complex codes based on simple principles of antipathy and attraction. In the evolution of society clear criteria, based on utility, property, and self-preservation, determined the complexity of written laws. It is essential to grasp the parallel between Gassendi's reversal of the Greek tradition; which made the constitution determine the balance of property in the State; and his reversal of the philosophical convention which gave space hierarchical power to order the behaviour of the elements.17 Gassendi regarded the eventual emergence of scientific truth as governed by the same 'evolutione intestina' which he discerned in the laws determining material and social structure.

These parallels between Gassendi's philosophical approach in two very different areas are unlikely to have been accidental. They are an application of the principles analysed in ASTRONOMY iii. There is an architectonic unity to the structure behind Gassendi's thought; though even the careful reader might suppose it disjointed to the point of incoherence in its formal expression. One reason for this apparent looseness is his reliance on metaphor. Metaphor can sometimes mark an advance in understanding, but is always imprecise. Gassendi was particularly addicted to metaphor, whilst aware of its
limitations. He could write jokingly to Peiresc, 'If I were not afraid of speaking poetically, I would say your letter burst upon us like a sun-rise.' He belonged to the new literary circles in which the prose metaphor was slowly being edged out, preparing the way for classical French. But his own use of metaphor was unusually precise—often implying the presence of hidden mathematical models. This is the case in his application of a nautical imagery to planetary motion, or his use of the pendulum to link Kepler's equal-areas law to Galileo's law of acceleration. Metaphor suited his purposes, because he wished to hint of his discoveries rather than to display. There is method in his analogies. Even the letter quoted above, about the sun-rise, had an ulterior resonance. He was just about to announce to Peiresc his conversion to Copernicanism—something which he entrusted to paper, not without heart-searching, though he had been a secret Copernican at least five years already. When some of De Valois' supporters were insinuating that De Valois should assert his ancestral claim to the throne Gassendi allowed, in his private letters, the imagery associating Louis XIV with the sun to flow into flattering comparisons of his patron to 'the rising sun.' All this makes Gassendi sound extraordinarily devious. One of his favourite metaphors for physical processes was the chameleon—and he might appropriately have chosen it for his personal emblem instead of the lamb.

It was therefore unobtrusively that he disposed of the old basis of political thought: the principle that the laws and the sovereign establish the distribution of wealth, according to some chosen harmonic principle, such as aristocracy or oligarchy. Instead, he asserted that the laws were made as a result of a given distribution of property and that this in turn had resulted from some sort of social war. The importance of utility and self-preservation in this
scheme show the closeness of Gassendi's thought to Hobbes. The intimacy of Mersenne with both these sceptics, during the 1630s and 1640s, and the close relationship of Mersenne's political attitude to theirs, shows how the evolution of the new science related to the new politics.  

These are some of the metaphors which he used to define his concept of the State: the soul and the nervous system, the harpist and strings, the relation between sun and planets. The very traditionality of these images (which was purely superficial) yields us the key to Gassendi's views on the relationship of science and politics. Since we have no first draft of this section of the Syntagma, it is not known what modifications were made between the version completed by 1634 and our version. But even with the evidence before us, it is clear that Gassendi's citation of these metaphors masked a new idea under a double meaning; a device which he used sparingly, in relation to his total output but which was all the more effective, since only a handful of readers would be aware of it. The blatant irony of a Galileo or a Pascal loses in penetration what it gains by explosive effect; even a Simplicio would realise their true intentions. A good example is his use of 'soul' in relation to the nervous system. This image is purely conventional if we suppose it to be the Thomistic Catholic soul. But it is clearly Gassendi's animal soul, which was his basis for the nervous system. The animal soul, composed purely of material atoms—of a degree of refinement which Gassendi compared to fire—was responsible for all the behaviouristic mechanism of the body, including sensation and memory. It was identified with pain and the nervous system—functioning according to the same physical laws of motion ascribed by Gassendi to other material atoms in the De Motu. The animal soul was governed by the same laws as the cannon—Gassendi's favourite image for force—
acting under law. The sheaths of the nerves were charged with a fluid like gun-powder. The fiery atom was released with explosive command (imperium); the limbs responded according to a code based on the force and number of the detonations. This is not the traditional image of the transcendent spirit, (commanding the body hierarchically as master to slave) but an interactive system of forces. The nerves carried a mass of impulses from the senses (pulses of light were compared to bullets). Since the brain was merely an extension of the nervous system—'a giant nerve'—in Gassendi's reasoning, and the animal soul co-extensive with both, it could do little more than record electro-magnetic 'bombardment', storing its information in folds or waves. Each wave-length had a distinctive character like a piece of movable type. The net effect was to substitute a mutual action/reaction image based on force, for a command/obedience image based on natural hierarchy; a mechanical for an organic image. Cardinal Richelieu was not thinking of the traditional body politic when he described finance as 'the nerve of the State'; an image which recurs in Gassendi's writings. In his account of military organisation, money was the key messenger (imperium) that triggered every phase of the campaign and determined its results.

In understanding the metaphor of the stringed instrument, it is not necessary to know that Gassendi was an excellent harpist and cellist who used to join Hobbes in performing duets on the bass viol. But this does furnish us with context. Fr. Mersenne's principal claim to fame were his labours on the science of music. His achievement is best summarised as demystification. He portrayed sound as reducible to matter in motion. This agreed with the wave theory applied by Gassendi (see ATOMS and INDIVISIBLES) and dovetailed with Gassendi's quest for a Copernican physics.
writings on astronomy, Gassendi was able to assume that the harmonic theories of Kepler—which were very closely linked in Kepler's mind to the harmonic theories of political justice—had no experimental basis. Kepler's laws and tables were reliable because empirical, requiring only minor adjustments. But the harmonies could be dismissed. Gassendi and his circle had broken with the old division between celestial and terrestrial mechanics. There was no suspicion that Platonic sound, among the planets, might have different properties to sound analysed by Mersenne on earth.

Mersenne planned to turn sound into a behaviouristic theory of government. He envisaged that the science of the nervous system and acoustics would advance far enough to enable monarchs to manipulate their subjects through sound; forestalling popular revolutions. This developed an astrological theory of Kepler's. Both viewed peasants as no more than behaviouristic puppets, whose animal souls would dance to the right tune, if only it could be found. All this, and more, might be read into the superficially traditional image of the harp.

The same applies to the analogy of the sun and planets. Gassendi regarded gravitation as a reciprocal effect, resulting from quantity of matter and diminishing with distance, to an inverse-square law like light. This idea was commonplace in his immediate circle, for astronomers and mathematicians like Boulliau, Roberval and Wendelin. Gassendi understood the principle of rectilinear inertia, applying it to all concrete objects including planets. He pictured gravitation as an impressed force, centred mainly on the sun (on account of its bulk) constraining the planets in their elliptical orbit. Comets were deflected by the sun from their rectilinear course, but did not collide because their mass was close to a minimum: large enough for them to be 'motored' by the matter in the head, but small enough to be balanced by 'anti-gravity' particles in the tail, deflected by a
Newton's understanding of this critical concept was crucial for the birth of the Principia.

By picturing the State in gravitational terms, Gassendi conveyed an image to the initiate which was the reverse of the traditional hierarchical picture of the sun influencing planetary motion by virtue of his primacy and essential qualities. Gassendi would have found Ptolemy's comparison of the planets to a flock of birds, in ordered but ever-changing formation, or the manoeuvres of trained soldiers, more sympathetic than any medieval imagery. Gassendi pictured the atoms as perfectly trained soldiers, who needed no general to issue commands or make plans of battle. Gassendi's physics of force knew no frontiers; it was not bounded by the fifth element, the human skin, the surface of the earth or the State itself. In place of the class essentially born to command, and the class born to obey, there were impersonal forces following natural laws. These were unknown only because the 'code' governing their combinations was too subtle to crack. The whole point of gravitation, as envisaged by Gassendi and Roberval, was that the planets were not passive 'subjects'—as with Kepler—propelled by a sovereign sun. Each atom had a small piece of propellant power: *vis inertiae* was not passivity but force.

Of all three metaphors, gravitation was the most potent, since the sun was more publicly a political image than the others. But there was, in Gassendi's philosophy, a close interconnexion between all three. Newton associated the stringed instrument both with his discovery of gravitation and with his analysis of the spectrum. In a letter from Gassendi to Louis de Valois in 1642 about understanding vision, it was the force (*vis*) by which something (*quidam*) was thrust out or brought in, which was to yield the key to natural phenomena. Now there was no great mystery about this from an optical standpoint.
As Gassendi knew very well from his experiments with the eyes of dissected animals, light bounced on and off the retina to form an image, whether the eye was connected to the brain or not. The mechanism of which Gassendi was writing was not so much that of the human eye as the nature of light; viewed as a model for other physical systems, such as sound, magnetism, electricity, the nervous system, muscular contraction, gravitation, etc. 36

Kepler took for granted the existence of a musical harmony, linking the sources of order and disorder in Christendom with the same mathematical laws which ordered the solar system. 37 The image of the sun had been linked to this order, even by the Pythagoreans—who did not believe in government through monarchy. 38 The communistic city of the sun, depicted by Campanella, attracted Naudé, Urban VIII and Peiresc. 39 The speculations of Mersenne, Wendelin and Boulliau about the propagation of light, sound, or gravity, assumed light to be a universal model. 40 Gassendi’s theory—making the alternating impulses of attraction or inertia between particles, the basis of a composition of forces responsible for propagating waves—lay somewhere between Kepler and Epicurus. Boulliau’s image of this process, the pyramidal ray surmounted by the eye, recalls the Rosicrucian literature. It has certainly little connexion with Catholic orthodoxy or medieval light-mysticism. But there was nothing mystical about Gassendi’s approach. The same laws: the composition of forces; successive impulses propagating in waves; inertia; action and reaction; explained the system of the brain, nerves and muscles, musical instrument, the solar system, the composition of states.

Since Gassendi was not in a position to say exactly what these laws were, there was still room for mysticism. Boulliau filled his optics and Copernican physics with speculations on the geometry of light. But, although both these men were priests, there was no hint
Pythagorean TETRAD (ΤΕΤΡΑΔ)  
Gassendi might have come across this diagram when refuting Fludd (1629-30).  
Fludd found it in the works of F. Giorgio—which were in Peiresc's library; so Gassendi may well have found it there, before confuting Fludd.  

Kaballists, active in the Academy patronised by King Charles IX, associated it with the four letters of the divine name in Hebrew.  

It seems to have inspired Gassendi's diagrams for acceleration, pendulum and inverse square laws.  

Gassendi's Tetrads society contained Naudé, La Motte Voyer and Diodati. Naudé was also in the Roman Academy of Humourists (a reference to the 4 humours)
of Christianity in their speculations — quite the reverse. De Valois, Boulliau and Gassendi all identified with Prometheus, who stole fire from heaven and was punished by the gods. Their Epicurean interpretation of this myth made it an allegory of superstition. The plight of Creator Prometheus, chained to the mountain whilst vultures gorged his liver, reflected the misunderstanding of the universe through religious superstition. Boulliau's chosen emblem of light-worship was the pyramidal meteorite, which Heliogabalus, the most depraved of Roman emperors, invited the Empire to worship as a gift of his parent the sun. Boulliau quoted Philo, Plato, Zoroaster, Patrizzi on light, but no orthodox or scholastic writer.41 The same fascination with light lay behind Gassendi's choice of the term Tetrad. For the Pythagoreans the tetrahedron was the shape of the fire atoms. Boulliau and Gassendi saw the inverse-square law as a direct consequence of the geometry of light applied to solid bodies. Because of Gassendi's theory that all objects were composed of vibrations of atoms in motion, corresponding to definite numerical 'codes', there was no longer any supernatural or immaterial character attached to light. Its particles, 'almost weightless', were subject to a composition of forces, so that its straight lines were a combination of impressed force and inertia. The path was open to explain any material attractions on analogy with light, and to reduce the soul itself to light; that is, a sophisticated arrangement of matter.42

This background makes it much easier to see the coherence of Hobbes' interest in light, corpuscularism and political theory. It knocks away the prop to recent attempts to portray Hobbes as a serious Christian thinker. Sympathy with light-mysticism points in two directions: it has a Christian but also an achristian side. There can be no doubt about the sympathies of the circle under discussion.
Sun-worship is about the only form of theism in which Naudé showed more than a jocular interest. The *Theophrastus Redivivus* and Pierre Charron made sun-worship the great antidote to anthropocentric Christian theism. The sun was the emblem of the seeds, the forces of nature, which Naudé and Gassendi believed Prometheus used in the creation. La Mothe Le Vayer’s pupil Louis XIV made it the insignia of his own personal Leviathan.
1) The Secret

1 e.g. W. Bagehot Physics and Politics 1873. He described Lucretius as the most nineteenth-century poet in all antiquity. It could be argued that the real break between ancients and moderns occurred in 1914-18. Bagehot's world remained in many ways a Greek one.

2 Metaphysics I iv 5

3 W. Lecky History of the Rise and Influence of Rationalism in Europe 4 edn. 1870 p.ix

4 T. S. Eliot used the phrase 'dissociation of sensibility' in his Metaphysical Poets 1921 to describe 'something which happened to the mind of England'. Whereas in the seventeenth century all experiences, sensory and intellectual, interacted as a whole, the modern age has compartmentalised them.

5 E. Tisserand Étude Sur Antoine Godeau 1870 p.93
Like Gassendi he was an admirer of Galileo and a convinced anti-scholastic. He wrote of Gassendi's Epicurean Physics: 'Ne quitte point la route ou te met ton génie Gagne par tes travaux une gloire infini.' Histoire de l'Église I 1672, preface.

6 Privately he was strongly hostile to scholasticism, but this is soft-pedalled in his Histoire de l'Église.

7 O.O. V pp.381-2 See also GASSENDI AND THE CHURCH pp. 104-109 and notes 126-7

8 Deux Dialogues ... ed. E. Tisserand 1922 pp.68-131. This is an authentic Tetrad discussion. See also PROVENCE MENTALITIES p.19


10 Montmor is described as a 'Cartesian' by historians of science. Viewed from the purely scientific standpoint, as exercises in anti-scholasticism, Descartes had more in common with Gassendi than generally supposed. See Dictionary of Scientific Biography IX art. Montmor.


12 The evidence for the existence of this society was left unnoticed for centuries B.N. MS 14489 fr. The classic work is R. Allier La Cabale des Dévots 1902.

13 O.O. IV pp.66, 73.


15 O.O. VI pp. 208-5.

16 Quoted in H. deCôte Vie du M. Mersenne 1649 with two editions in that year with separate dedications to Louis de Valois pp.42-3. Gassendi referred to these columns in a letter to De Valois (O.O.VI p.133a) of 1642; on them was carved the ancient science from which Greek wisdom received the rivulets.


19 The chameleon was used as an emblem by early modern sceptics, because its colour adjusted to its background Paolo Sarpi D. Wootton 1983 p.119. 'Ego sum velut Chamaleon: personam coactus fero.' persona = mask was another of Gassendi's favourite phrases. Sarpi was a friend of Peiresc, who was the first to make a serious anatomical study of chameleons.

20 The chameleon was used as an emblem by early modern sceptics, because its colour adjusted to its background Paolo Sarpi D. Wootton 1983 p.119. 'Ego sum velut Chamaleon: personam coactus fero.' persona = mask was another of Gassendi's favourite phrases. Sarpi was a friend of Peiresc, who was the first to make a serious anatomical study of chameleons.


22 Louis Thomassin's bid to scholasticise Gassendi - see his La Méthode D'Etudier et D'Enseigner Chrétienement La Philosophie 1685.

23 Louis Thomassin's bid to scholasticise Gassendi - see his La Méthode D'Etudier et D'Enseigner Chrétienement La Philosophie 1685.

24 O.0. II p.509a The 'animal spirits' or emotions are compared to molten lead flowing in pipes, or to subterranean convection.

25 Gassendi uses a wave or particle image interchangeably 0.0. II pp.405-6.

26 O.0. II p.762a 'Without money an army is a swarm of thieves.'

27 M. Mersenne Harmonie Universelle 2 vols 1636 dedicated to Louis de Valois, Montmor and Peiresc. Also the Préludes de l'Harmonie Universelle 1634.

28 Lenoble Mersenne 1943 p.44 0.0. I pp.560b-71, Boulliau Astronomia Philolaica 1645, Wendelin Luminarcani Arcanorum Coglestitum Lampas 1643. Historians of science treat all these as separated writers. But Gassendi worked closely with both Boulliau and Wendelin; the rejection of harmonies was concerted.

29 H. Fabri coolly envisaged the possibility of heavenly bodies following any of the conic orbits: parabola or hyperbola as well as circle and ellipse. Philosophiae Tomus Primus I p.363 Lyons 1644 with prefaces by Mersenne and Gassendi. Made forty years before the Principla this deduction followed logically from Gassendi's analysis of motion in the De Motu 1642 and his unpublished physica.

30 Lenoble Mersenne p.34 'moraliser par la science'.

31 Kepler Opera Omnia VII pp.641-3.

32 O.0. I pp.638-9 He described mass and impressed force as O.0. I pp.700-1 'equiparatus' (a word he applied also to goods and cash in a transaction).

33 The Correspondence of Isaac Newton ed. Turnbull 2 1960 pp.358-60. Halley (from Paris) Dec.1680 to Flamstead. He was at this time the guest of Cassini (born at Nice) who had been a pupil of Gassendi's old friend Fabri. For Cassini's relations as a young astronomer with Gassendi, see 0.0. VI p.527; April 1681. Newton used analogy of a comet 'navigating' like a ship.

34 This quote, from Ptolemy's lost Hypotheses would have been unknown to Gassendi, but agrees very well with his approach, e.g. 0.0. I p.336 or 0.0. IV pp.71-2
See ATOMS AND INDIVISIBLES
Rattansi and McGuire Notes and Records of the Royal Society 21
1966 108-143

Lohne Archives for History of Exact Sciences 1961 'Newton's Optical Experiments':
0.0. III pp.470-2 and I p.436. All writers on the history of science refer, without exception, to the total originality of Newton's optics. Yet Gassendi's theories were in print by 1642 and, at rather more length, from 1658. Newton's notebook, which related some of Gassendi's experiments on light, contains other material evidently derived from Gassendi. Cambridge Add.
36 O.O. VI p.154 Gassendi to De Valois; 'Oh! Si vel hoc unum intelligeremus quomodo eliciatur Visio, res familiarissimae, qualis sit haec videndi vis et qui fiat ut talem rerum faciem percipiat.'

Although the vulgar supposed the sun to stand for the king, scholars understood the sun to be the image of the ruler or watcher. Rheticus, for example, argued that the sun was at the centre for the same reason that the electors always chose the prince with the most lands as emperor. This is a quantitative concept, not a hierarchical procedure.

See the bizarre Panegyricus addressed by Naudé to Urban VIII after he had allowed Campanella to escape from the Inquisition to a waiting Peiresc in France. Written in 1632 this treatise helped to seal Galileo's fate. Naudé wrote; 'The escape of one Copernican might be explained by absence of mind...but two?'

De Natura Lucis 1638 p.146 lux anim. est mundi (animus mundi was thoroughly pantheistic) p.150 God = eye on pyramid = fastest thing in universe. Boulliau links this mysticism not with Christianity but with Lucretius book I and his Venus. In his reply O.O. III pp.448-55 Gassendi accepts both the inverse-square law and the pyramidal/eye imagery—but omits all reference to the mysticism.

Op cit p.123 Philolaus pp.9 and 39 Fr. Garasse in his attack on Libertinace 1623 singled out Heliogabalus as one of their heroes.

There is Naudé's admiration for Campanella and Patrizzi (both non-Christian light-worshippers) in his Rosecroix 1623. He commended the Renaissance sun-worshippers for adoring 'Ce Dieu sensible de l'universe'. pp.12-3 Milton compared Satan to 'a pyramid of fire', Paradise Lost II.

Theophrastus Redivivus 1659? dismissed the world's religions as the impostures of statesmen. Only the sun was the true image animus mundi. La Mothe Le Vayer Deux Dialogues ed. 1922 p.136 dismissed God as nothing or vacuum; pp.137-8 sun-worship was praised as the only approach to true religion. It was implied that Copernicus was influenced by the solar paganism still practised in West Prussia and Lithuania at that time: Gaugini Samartiae Europeae Descriptio 1578.
If this stout boy slept in the Louvre palace and not here, he would change the face of the present and perhaps the whole future of France.

A. Dumas

Marie Touchet
favourite mistress of King Charles IX, as Diana (in her bath) circa 1574

At the breast, the future Duke of Angoulême, father of Louis de Valois 1596-1653
bishop of Agde, Column General of all French horse, governor of Provence.

LOUIS EMANUEL DE VALOIS
Duc d’Angoulême, Prince de France, Comte d’Auvergne, Prince de Pontaumur, Comte de Provence, Maréchaussée des Ordres du Roi; Colon en la Confrérie de Provence, napolitain en Avaras de lancement de 1679. Il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prétendant à l’état de Prince, il s’est élevé de son état de Prêt
ii) THE SWORD OF CAESAR

We have seen that Gassendi's science implied a new concept of the State—promoted in a semi-clandestine manner in his writings. Is there any evidence that Gassendi's work was acceptable to the French government, or indirectly promoted by it? A key figure here was Louis de Valois, Governor of Provence from 1636-53, a favourite of Richelieu and Queen Anne of Austria; a 'client', to use the language of the time, of Richelieu's Finance Minister, the libertin Bouthillier. He was the last descendant of the Valois line, debarred from the throne by his father's bastardy, Shakespeare's bastard Edmund exclaimed: 'Thou nature art my goddess'; and De Valois plunged himself into the natural sciences with an enthusiasm untypical of his peer-group—but then few great nobles had the confidence of Richelieu either.

Although we do not have his papers, it is clear that he and his entourage were enthusiastic Baconians, and that he did not disdain to occupy himself in the laboratory—particularly after his disgrace and imprisonment in 1650. Without De Valois' support the work of Mersenne and Gassendi would have been much more difficult. It was really De Valois—not Louis XIV—who was the true Solomon to these twin columns of the temple of knowledge; a fact which the minime Hilarion la Côte acknowledged in 1649. Although unusually honest by the standards of the time, his enemies saw him as a ruthless exemplar of the Machiavellian doctrine of raison d'état. In the secrecy of his cabinet, he liked to peruse his Tacitus—at that time the bible of the atheistical politique—and scan reports from the whole of Europe, like some miniaturised premier ministre. He ran Provence on the new administrative principles brought in by the great cardinal. The emphasis was on impartial justice, arbitrary disregard of local customs or vested interests, and raising a great deal
of money. Armed force was the basis of his authority and, though he was reluctant to use it as brutally as other officials, he came in the end to recognise that absolutism could not work without waging war on its own subjects and by the most ruthless methods.

Apart from placing his enormous fortune at their disposal, and financing the publication of scientific books by Mersenne and Wendelin, he assisted with experiments which might otherwise have been impossible. He lent Cassendi a warship in 1640 to experiment with the relativity of motion. He lent Mersenne an artillery park, in 1644 and again in 1647, for experiments on ballistics. The treatise on the results, dedicated to De Valois, makes clear that despite Lenoble's attempts to prove otherwise Mersenne's interest in projectiles centred on the nature of gravity. They were part of a clandestine research programme into a Copernican physics. Mersenne's reprinting of Roberval's *Aristarchos* (which linked mutual gravitation to heliocentrism) in the same book as the projectile experiments, confirms this impression. De Valois was a convinced Copernican, Baconian and Epicurean. It was explained, in an earlier chapter, how his interest in science, interacting directly with his social attitudes, reduced his inflexibility towards the external trappings of a hierarchical society. He could treat the sons of peasants—as Roberval, Cassendi and Mersenne were—as social equals. Other experiments which he supported were Gassendi's proof, using firearms and artillery, that high-pitch and low-pitch sound travelled at the same speed—which confirmed a wave theory; and the barometric experiment, generalising Pascal's, at Toulon. De Valois, who was Comte d'Auvergne and born in Clermont Ferrand, may have introduced Cassendi to the Pascals.

The weight of evidence connecting the French administrative class with patronage and involvement in the new science is overwhelming.
De Valois, as an old aristocrat, was an apparent exception. Between 1635 and 1649, he was the only prince of the blood sufficiently committed to the new methods of government to be entrusted with real administrative power. It is dangerous to base deductions on patronage alone. Nonetheless it is impossible to dismiss the quite disproportionate role of Cardinal Richelieu's relatives in advancing Gassendi's career, protecting him from his critics and making him loans on easy terms: Francois Luillier, Chapelle Luillier, the Champigny family (one of whom was Valois' loyal intendant in Provence) the Duchess d'Aiguillon, the Duc de Richelieu, the Cardinal Archbishop of Lyons (Alphonse de Richelieu) etc. Robert Boyle, as the son of an Earl, understood very clearly that 'a man of mean extraction (tho' never-so-advantaged by great merits) is seldom admitted to the privacy of great ones but rather considered a saucy intruder.' Now Gassendi was received by these families on equal terms — not as an inferior tutor or chaplain. It was interest in his science in general, and his Epicurean physics in particular, which made Gassendi chic—not his beautiful eyes or his utility as a confessor. The patronage of Gassendi by another key member of the administration, Chancellor Seguier—right-hand man of both Richelieu and Mazarin, co-ordinator of the operations of the new intendants throughout France—removes all ambiguity. Gassendi was not merely a cultus among the Richelieu family. His intimacy with Montmor is further evidence that he was valued by a cross-section of those administrators, bankers and nobility whose interests were intimately bound up with the success or failure of the new absolutism. Although he was later on good terms with leading frondeurs, like De Retz and Conti, this is explained by his opposition, from 1644, to Cardinal Mazarin.

The question poses itself; Why did Richelieu personally hold aloof? This we do not know. But direct State patronage for Gassendi
might have been embarrassing. in the 1630s, when his Copernicanism and free-thought were sealed under the merest glaze of protective scholasticism. For similar reasons the Cardinal kept his erotic Poussin Bacchanales in his private apartments. It is inconceivable, for example, that Richelieu did not know of his favourite governor's propensity for lending out valuable military equipment for scientific experiments; the Reale galley was the equivalent, in modern terms, of a nuclear submarine. Richelieu was on terms of scandalous intimacy with another Gassendi enthusiast—his niece the Duchess d'Aiguillon. Whatever Richelieu's ultimate design, it is a mistake to suppose that historians may read the beliefs and motives of the great Cardinal with the same ease with which we flip open a text-book to find a date. Evidence suggests that he did approach Gassendi, at least twice, with offers of official patronage and was repulsed. In 1632 he offered, indirectly, through Peiresc, control of a surveying and scientific expedition on the Provencal coast. This was a key position, of great commercial and military importance to the government, but Gassendi refused to assist in any way. In 1639 he offered, through De Valois, the prestigious and highly lucrative position of Agent General, collecting the clergy's taxes to the Crown. Gassendi accepted and his clerical electors were duly bribed and coerced into submission. Unexpectedly, Gassendi resigned this post after a year to a leading opponent of Richelieu's taxation of the clergy. Richelieu's reaction is not recorded. These two rebuffs imply that in relation to the great Cardinal Gassendi felt himself to be in a position of strength. His intimacy with Richelieu's family was quite unaffected by these episodes. If anything, it intensified.

Why did absolute monarchy need science? The most obvious reason, the practical, is scarcely relevant here. Military technology, naval design, fortifications, sieges, ballistics, navigations, accurate maps,
surveying frontiers, making and breaking codes, were of interest to Peiresc, Mersenne and De Valois. Although the latter was a cavalry officer, his energetic participation in the siege of La Rochelle—in which his father had been commander-in-chief—brought him in contact with top mathematicians, like Desargues and Roberval, drafted in by Richelieu to advise. Mersenne praised De Valois for his assistance with some of the mathematics in his Harmonie Universelle, although the latter was becomingly modest about his scientific abilities: 'My ignorance of the sciences and your lack of birth are contraries which make up an exact proportion to our friendship', he wrote to Gassendi. These practical needs explain why science had a new prestige in the eyes of the government—equal to that which nobility had possessed in the France of the crusades. But they do not explain the interest in Gassendi, whose modest contributions to the calculation of longitudes and magnetic variation, even when others incorporated them in new maps and tables, were scarcely earth-shattering.

The true reason lies in more elusive and less traceable areas. The value of Gassendi's Epicurean physics was by no means purely scientific. For some of his contemporaries its truth was a secondary question: it was the attitude of mind and the ideological implications of the philosophy behind the science which mattered.

First and foremost it was a sociological question. Quite independently of Gassendi's own philosophy the tendency of seventeenth-century administrators, personified by Montaigne, Charron or du Vair, was to develop their own syncretic and elitist philosophy. They owed much to Aristotle, Epicurus, Cicero and Lucretius and borrowed the merest fig-leaf from dogmatic Christianity. This attitude was deliberately fostered by the State, under the late Valois kings, as a means of preventing the collapse of France into rival religious factions. With the wars of religion over, the offensive of absolute
monarchy against privilege at home, personified by feudalism or the Church, and the Catholic Hapsburgs abroad, made the need for a secular-minded and dependable élite to implement raison d’état imperative. Only certain aspects of Gassendi’s thought were favourable to absolutism. And, from the 1640s, Gassendi deliberately muted some of these. But Gassendi’s theory—that laws were a response to social utility, to be melted down or forged according to historical circumstances—exactly fitted the policy of the new intendants. It cut the ground from under the feet of traditional criticism of absolute monarchy, which depended on the belief in a time-honoured ancient constitution: a Gallic equivalent of the ten commandments. (See PROVENCE: MENTALITIES iii Law).

The particular appeal of Gassendi, at a time when scholastic theories of science and scholastic theories of limited monarchy were both seen to be increasingly irrelevant, was to show how well the discoveries of the new science could be accommodated to the world-picture of sceptical secularised paganism held by an earlier generation of public officials. This perspective is evident, not merely in the earliest drafts of the Epicurean physics, but in the Syntagma itself. Gassendi’s argument was that science was a series of human constructions, each appropriate to a particular level of social development—not a sudden revelation of God’s ground-plan to man. Exactly the same lesson should be applied to the State. This seemed a charter to any state-craft which subordinated principles drawn from tradition or religion to expediency.

In Halley’s Ode prefacing Newton’s Principia, there is an elaborate analogy between the discoveries of various arts and crafts, the first founders of cities and law-givers, and the work of Newton himself. This approximates very closely to Gassendi’s perception. The supernatural was defined as that which was beyond the reach of mortals to attain. This was not so much a defence of absolutism per se, as a relegation of religious knowledge to the role of lubricating popular obedience: the knowledge of the truth—that there were no divine laws—
was for the god-like élite alone.

As early as the sixteenth century the possibilities of a more scientific as opposed to a scholastic training for royal officials were clearly grasped. The foundation of the Collège Royal, by De Valois' immediate ancestors, with its Chairs in Greek and Mathematics, is evidence of that. Refugees from what Sorbière called 'the disquisitions and intrigues which beset scholars in the universities', like Ramus, Gassendi or Roberval, found a home — and a fashionable audience. Mousnier has shown how the formation of the new intendant-class was entirely humanistic and legal in its basis. He linked this to the greater egalitarianism and impartiality which Richelieu required of his intendants, in extracting money from the privileged.

This is confirmed by contemporary testimony. Peiresc, commissioned as an intendant himself, cited Bacon's dictum that

"men of learning serve kings and states: ecce tibi lucrifici, not ecce mihi lucrifici — whereas the corrupter sort never look abroad into universality, thrust themselves into the centre of the world as if all lines should meet in them; indifferent to the ship of estates, if they have the cock-boat of their own fortune ready to save themselves."

This related to Fontenelle's later claims about the relationship between the geocentric mentality and those who insisted on personal precedence, no matter what social disruption might result. A more far-reaching parallel might be drawn between the insistence in the circles of Peiresc and Gassendi on 'world citizenship'; contrasted with the native parochialism of the Provencal communities, who valued their legendary saints, histories, relics and 'renomée' quite as much as their privileges and tax exemptions. Even when there was no material benefit (and pilgrimages were a steady source of income in Provence) the psychological links were potent.

The influence of Bacon's writings on educated French officials of the first half of the seventeenth century has been ignored.
Not only De Valois, Peiresc or Fermat but Chancellor Séguiier himself related their self-image as administrators directly to interest in the new science. Gassendi wrote to Séguiier:

'Philosophy is best suited to your genius, immersed in particular affairs. It will preserve your serenity, that constant contemplation reaching out to embrace the truth, will counterpoise your soul. It is true that you will not be handling things exactly as they are, in themselves not gazing through a sublime mirror or into the covenant box. Yet, you seek to measure reasons drawn from the interiors of nature, rather than appearances and circumstances. Therefore you are not only the defender of the laws, but the equal of those legislators, whom Aristotle compared to architects, because they pursued equity in reason and the general good. The magistrate, merely applies the code. In you these two functions are reunited, though unhappily divided in the past. It is partly inertia, partly moral degeneracy, that law has been separated from true wisdom and philosophy and become purely the study of persuasion. You, however, carry the palm in both.' 24

Séguiier exercised extraordinary powers. After the Normandy peasant war of 1640, he suspended the parlement for corruption and ruled by decree. Richelieu gave him his special authority over the intendants and legislative powers—derived from the Council—which he exercised as Chancellor. He was expected to ignore privilege and custom, applying a rough-and-ready equity; justifying all through 'necessity' or the general good of the State. The reference to Aristotle conceals the fact that conventional political theory condemned the French administration as a tyranny, in scholastic terms. The charge was that the French government ignored natural, divine and canon law (which it did). Many Frenchmen, perhaps a majority, endorsed this view of Séguiier's Chancellorship.25 Even as Séguiier read this letter his coach was lurching away from a capital where he had narrowly escaped death at the hands of the mob. Séguiier's rough justice towards the peasants had stacked the rowing benches in the Provencal galleys.26 Yet he was an eminently civilised administrator. He was the only one to grasp the potential of Pascal's adding machine, constructed to assist his father in threading those labyrinthine Norman
tax arrears, which had provoked the rising of 1639. At last, it seemed, corrupt officials could be brought under the control of hard-pressed auditors—like Luillier in the treasury. In 1649 Gassendi's *Animadversiones* were presented to Séguier; and in the same year his *Epicurus* was dedicated to Luillier. It is easy for the pure historian of science to dismiss patronage as peripheral, for what's in a name? But even if Luillier had not been a member of the Richelieu clan his place in the financial and legal establishment of absolutism was of critical importance. Anticipating the Chancellor's departure, 1649 saw Luillier's coach rumbling south, *en route* for Provence and Italy. It was not so much the mob as the parlement's plans to investigate excessive profits among tax-farmers and maladministration that drove Luillier in search of the sun. It was utterly characteristic of Gassendi that he persuaded the old libertin—exhausted by drink and whoring—to allow him to administer the last rites on his arrival in Provence, more dead than alive. There is little point in attempting to conceal that Gassendi's Epicureanism—his insistence on the pleasure-principle—appealed to magistrates who loved chateaux, good living, libraries and all the arts. This complements the earlier points about analysis of evidence or equity and universalism in applying the law, and does not conflict with Gassendi's insistence on an *outward* conformity to mother Church.

One further point about Gassendi's letter to Séguier. The contrast between true law—hidden like the original tablets of Moses in the Ark—and human laws or human science, may not be readily understood without additional context. What Gassendi meant is that though we may contemplate the mystery of true law, or true science in our mind, we may never handle it (to touch the Ark was death, as depicted in a contemporary Poussin painting). Although human laws and human science were measures superior to the realm of appearance
and historical circumstance, they were not full truth. This awareness distinguished administrators like Séguier or philosophers like Gassendi from the common ruck, who imagined they had absolute reasons when they had only the art of persuading others they were absolutely right. Gassendi was contrasting a utilitarian view of law with one which mistakes tradition and surface appearances for absolute truths. He was striking a blow—in a very indirect and circumlocutory manner—against the theory that France had an ancient law and a true constitution which absolute monarchy had violated. Yet he was not following Naude in adopting a purely relative position. He did not deny the existence of scientific truth and social justice; merely that they could be reduced to easy formulas.

The anti-feudal, anti-clerical element in French Renaissance monarchy has been little appreciated outside a narrow circle of specialists. Lagniet's anti-seigneurial cartoons, often used in popular text-books on the revolution, are in fact contemporary with Gassendi. A libertin lawyer, in Gassendi's circle, Chantereau Lefebvre, expressed an attitude common among the legal and administrative class, when he denounced all seigneurial rights as 'tyrannical'. 'By nature all men were born equal; it was pure force which converted some into masters and others into serfs or slaves.' Their view was echoed by the Theophrastus Redivivus and Gassendi's political philosophy showed a similar ideology. Property rights were justified by contracts and the legal system created to defend them. Seigneurial rights, on the other hand, or rights over persons, were not mentioned. In discussing the naturalness of slavery, in his logic, Gassendi specifically opposed his relative concept of space to Aristotle. He linked Aristotle's claim that slavery was an essential quality of the slave—part of his nature—with his belief that spatial directions like up/down were
absolute. Slavery was in reality an accident, like left or right. It was purely relative. Gassendi was here utilising the isomorphic quality of his new space, so indispensable to the quantification of his concept of force, to dismiss old social structures. Moral absolutes: natural/unnatural, good/evil were dismissed from his analysis of political behaviour. A pleasure/pain psychology was quite adequate to explain both the formation of human societies and the evolution of their forms of association. From this perspective human behaviour, he claimed, like that of matter, could be resolved into the diagonal of a parallelogram of contrary forces. 33

The importance of this parallel is heightened when other contemporary traditional theories are examined. Aristotle's equation of the heavens, or fifth element, with the natural rulers and the four elements with the ruled, was still fundamental to scholastic political thinking. It was a key argument in the defence of astrology - the power of the planets to rule the sublunary world. 34 Gassendi's rejection of astrology and of the sublunary barrier were therefore of a piece with his social criticism. As he wrote to Luillier: 'I believe in astrological influences. They have as much power as my lords of mesne flet' (i.e. none). A copy of one of Chantereau Lefebvre's books was found in his study at his death. 35

Gassendi's work related to the anti-feudal mind of the administrator of absolutism, trained to think politique rather than persons; encouraged to see justice in terms of equity, rather than restoring natural rights to three orders as distinct in essence as air and fire, earth and water. 36 This is one key to the enthusiastic patronage extended to Gassendi by the Aix parlement from 1610 to 1637. More important, from the standpoint of central government, was the relationship between Gassendi's philosophy and the new Machiavellianism, or raison d'etat.
His close links, with the *Tetrad* society, were crucial in this connection. Gabriel Naudé and La Mothe Le Vayer were the two outstanding theorists of *raison d'état*, not only in France but in Europe.\(^{37}\) The significance of their work and its connection with the rise of modern science has been little understood.\(^{38}\) The seriousness and coherence of their free-thinking has been denied; either from the difficulty of studying their large and inaccessible body of writings, or for want of applying the rules laid down in my Introduction. Their philosophy may be jointly summarised as follows:

1) Christianity is a superstition like any other, justifiable for its effect on public order.

2) But the Reformation and the wars of religion, civil and international show that it has become a destructive rather than a cohesive force.

3) Therefore the secularisation of society, through a growth in State power, has become desirable. The spread of atheism, at least among scholars and civil servants, will increase their loyalty to the State and exercise a beneficial effect on public order.

4) The State is above morality. It is founded on force alone, and any measure is justifiable in the interests of public security.

5) Christendom and Natural Law must continue to be recognised as public ideals; there must be no public rejection of Catholicism. In practice, however, *raison d'état*, *raggionio di stato*, interests of State are the real criteria.

6) Loyalty was not really grounded on nationality or patriotism. The élite were loyal to the State alone. As Mazarin put it: 'Al gentiluomo ogni paese e patria.'\(^{39}\)

Although it is impossible to prove, there is great antecedent probability that Cardinals Richelieu and Mazarin subscribed, without turning a hair, to this secular Credo. Let anyone who doubts this explain the patronage which they accorded to Naudé and La Mothe Le
Vayer. La Mothe Le Vayer, tutor to the king's brother and, clandestinely, to the king himself, lived in Mazarin's household. Naudé was not only Mazarin's librarian but the custodian of his political secrets, his personal adviser and *guru* on questions of *raison d'état*. Richelieu admitted La Mothe Le Vayer, along with Godeau and Montmor, to his new *Académie Française*. La Mothe's friend, Mlle. Gournay, the feminist, was a bosom companion of Richelieu's niece the Duchess d'Aiguillon; who patronised the Pascal family, when they were down on their political luck.  

What has this to do with science? Naudé's correspondence with Gassendi reveals his passion for the new physics. Historians have puzzled about why, on his return from the Netherlands, Gassendi set about writing an Epicurean physics when previously he had shown only biographical and philosophical interests in Epicurus. The project was suggested by Naudé himself (interested in Epicurus as early as 1623) in the course of *Tetrad* discussions. He joked about his 'paternity' of the new book, which he christened *foetus* and compared Gassendi to a pregnant woman who must not endanger her offspring. Naudé's jokes, enumerating the number of atoms lost in the recent eruption of Etna, or picturing Gassendi as an expectant mother threading atoms with hooks and eyes into garments to clothe the new arrival, should not deceive us. He was serious. What was the clue to his interest? It is to be found in his implacable hatred of scholasticism, the intellectual under-pinning of a religious worldview which he, personally, rejected. He felt that superstition needed to be bridled for social reasons; in one book he added up the totals of lives, money and property lost in the French wars of religion. It is not inconceivable that Gassendi, whose home town had suffered particularly at that time, found this argument persuasive.
11) The Sword of Caesar

1 'All my delight is now in the history of nature and the labour of experimentation. Experiment is the master-key, theory is indeed useless, if the former is neglected. Aristotle often nodded like Homer, as the great Alexander might have found for himself if he believed what he saw before what he heard. Experiment is the most powerfully auxiliary to our fleshly orbs, for it is the true eye of all the sciences.' De Valois to Gassendi, 14 July 1651.

2 Aix Méjanès MS 304 f.254 'Les Maximes de Tacite et de Machiavel sur lesquels il médite incessamment dans son cabinet...Voisine de l'Italie, la Provence se gouverne tout autrement.'

3 Both De Thau Raison d'État...1966 and D. Wootton Paolo Sarpi 1983 emphasise the close association of the study of Tacitus at the Renaissance with both religious scepticism and raison d'État. De Valois admired Tacitus to the point of imitating his prose style and writing all his letters in Latin.

4 O. O. VI p.213 Though Wendelin was already patronised by the Archdukes of the Spanish Netherlands—then locked in a death struggle with France—Gassendi wrote that De Valois was keen to sponsor Wendelin's work on the moon. De Valois' interest is no doubt explained because the book utilised Gassendi's new pendulum theory of lunar perturbations. I have not been able to trace it.

5 Novem Observationum Physico Mathematicarum tomus III Paris 1644 ed. M. Mersenne

The introduction praises not only De Valois but also his intendant Champigny. It specifically links Champigny's administration in Provence—his campaign for more equitable administration of community debt, (A55-64)'suprema aequitale atque prudentia Jus in eadem Provincia'—with his interest in empirical science. Since De Valois' administration was highly controversial at this time, this preface geared the new philosophy to political propaganda. Members of the Provencal parlement would have been among its small but cultivated readership.

6 See PROVENCE MENTALITIES pp.75-8

7 Pierre Gassendi 1955 pp.63-64. He and Mersenne calculated the speed of sound: 0.0. II p.360a—between 1,380 and 1,440 feet per second, an excellent result. It would not be anachronistic to say that he asserted speed to be independent of wave-length; a result which he claimed would apply also to light. Gassendi's theory of sound gives an insight into his power over Newton. Newton reproduced in Principia I problem xii Gassendi's distinction between equable motion of sound in spatium (Newton's true air), irrespective of agitation by winds (Newton's vapours). This theory 'one of the rare aberrations of Newton's genius' N. Feather, Vibrations and Waves 1961 is wrong. Gassendi is a possible source, since only he and Newton held it.

8 See PROVENCE MENTALITIES p.45 and GASSENDI AND GRAVITATION pp. 379/380.

9 See FRIENDSHIP AND SECRET SOCIETIES

10 Quoted in R. Maddison Life of the Honourable Robert Boyle 1968 p.3.
11 To study Ségurier's papers is to unfold a total map of French abso-
lutism. See Mousnier Lettres et Mémoires de Chancelier Ségurier
2 vols. 1964

12 Poussin and Gassendi were friends: See Actes du Colloque Poussin (1)
_—— N. Pintard
The Bacchanales are a paean of Epicurean sensuality; a celebration
of pleasure.

13 It was generally accepted that Richelieu was her lover. The
Duchess showed particular tenderness towards Gassendi in his
last illness. 0.0. (I) preface.

14 BN MS 24169 'Les affaires de la Côte Maritime de Provence' fs.1-5
'Provence is our Boulevard on the whole Mediterranean'.
MS 12772 Peiresc to Cassendi 'Le seigneur Cardinal veut avoir une
carte toute exacte...et sera finiment aise de vous y employer
plutôt que tout.' Gassendi to Luillier: 'Ce n'est pas une tâche à
mon goût. Tout ma peine est de trouver quelque honnête excuse.'

15 Vatican Library, MS Barb Lat 8197 ff.101-5
The Papal agent reported the clergy and people violently opposed
to the tax and De Valois had to use force and intimidation.

16 Siege Warfare 1494-1660 C. Duffy p.118

17 Harmonie Universelle preface and dedication 'particulièremment de
la geometrie et des autres parties de la mathematique.'

18 De l'Hôpital, a French general of the generation before De Valois
'was an excellent mathematician but took care to conceal it from
his staff lest they suppose him cowardly and unfit for his command.'

19 Prince of the Renaissance D. Sewart 1974 pp.165-6. There were also
chairs of medicine and oriental languages. The College was suggested
by the anti-clerical, anti-feudal lawyer Guillaume Buïé, an ancestor
of Montmor.

20 See preface Mousnier Lettres et Mémoires au Chancelier Ségurier 1964

21 Lettres de Peiresc vii 1898 ed. Larroque p.975.
F. Bacon Advancement of Learning 1605 1.2 beta.

22 See PROVENCE MENTALITIES pp. 55 and 79.

23 As far as I am aware.

24 This preface like the text had been ready since 1634.
Philosophicum quidem argumentum pro tuo genio sit...quando animus
ille tuus nunquam sic est rebus agendis immersus, quin serenitatem
sum tueatur, et constantier ad contemplandum complectendumque
veritatatem, quod ipsum est philosophari, comparatissimus perseverat.
Quin etiam quibus gerendis es destinatus non quasi ex specula
sublimi, quae veluti. Arx Philosophiae sit, prospelia; omnia
scilicet non tam ex quibusdam apparentibus circumstantiis, quam
ex rationibus a natura intima petitis dimetiens. 0.0.(VI) pp.195-6.

25 O. Talon Mémoires vii 1839 p.91 claims that Ségurier was 'generally
hated by the ordinary people!'.

Ségurier's brief was 'to get as great a number for the galleys as
possible!'.

27 Pascal Œuvres du Seuil pp.187-92 dedicated to Ségurier (1645)
The machine was to be sold and marketed by Roberval from the
Collège Royal. This shows the close links between Gassendi,
Roberval, Pascal and Ségui er which are so difficult to reconstruct. It would help if we knew something about Mersenne's mathematical academy, to which they belonged.

28 From political prudence the dedication to Ségui er was informal (the Fronde had started). His name was omitted from the printed book, though the book was brought to him with the letter. Gassendi tactfully explained that his name was not on the printed edition 'scopae quaeplam dissolutae', because it was not sufficiently ordered to be associated with so great a legal mind. Gassendi evaded a request by Ségui er to become his librarian and secretary with a large State pension. In Paris they met 'nearly every day'.

29 R. Pintard Libertinage Erudit p. 388 These investigations were conducted by the Paris parlement after 1648. One of the principal victims, the financier Tabouret, had funded De Valois' policies in Provence. R. Bonney The King's Debts 1981 p. 208.

30 It is evident that Luillier was conforming to please Gassendi: 'I am writing so you may know I am not yet dead and rumours to that effect are not so true as you thought. M. Gassendi, good friend and good cleric that he is, gave me the last rites—which has caused great scandal. Not in Provence—but among my acquaint ance in Paris.' He died soon after.


32 L. Chantea reau de Febvre Traité des Fiefs 1662 see Pintard Libertinage Erudit pp. 90-5. The statement that fiefs and serfdom are based on violence and usurpation' is the prelude, not to a political tract but a dry and standard legal textbook. Febvre was a close friend of Montmor and one of the founders of the Montmor scientific academy. 'Il faut étouffer cette oligarchie féodale, cette monstrueuse confusion qui nourrit et fomente des procès' (p. 175) sounds pure eighteenth century.

33 O. O. (I) pp. 98a 99b, II pp. 737-8 for example friendship is depicted as the $\sqrt{}$ (mean proportion) between flattery and rivalry. La Rochefoucauld used this idea in his Maximes, comparing right conduct to a ship propelled between the contrary winds of two vices. Good and evil were purely relative. Gassendi used the nautical image in a similar context. O. O. (II) p. 718a.

34 Aquinas S.T. II-II q. 104 a. 1 q. 115 a. 3 Yves de Paris Morales Chrétiennes 1660 II 11 p. 29
'Le peuple est comme la terre entre les éléments, un étage ravalé. La noblesse est comme l'air, arrangé salon son degré, s'approchant de la voûte céleste.'

35 'Inventaire après Décès' Archives Nationales.

36 I use 'feudal' in the sense in which it was employed in the seventeenth century: traditional rights of property over persons rather than land or cash.

37 See N. Keohane Philosophy and the State in France 1980. The best study remains F. Meinecke Die Idee der Staatsraison in der Neueren Geschichte: page references are to the 1957 English translation.

38 E. Thau Raison D'Etat ... 1966 draws some very perceptive parallels between science and politics e.g. pp. 381-7.

39 Deux Dialogues... La Mothe le Vayer ed. Tisserand 1922 pp. 92-136 Dialogue on Divinity contains such gems as:
'L'athéisme ne trouble jamais les états, mais il rend l'homme prudent et plus prévoyant à soi-même. Les temps inclinés à l'athéisme comme le temps de César Auguste, et le nôtre ont été civilisé.' Note the parallel with Bishop Godeau's views at the beginning of this chapter.


G. Hess Gassend 1939 pointed out that it is an error to confuse raison d'état with nationalism, which La Mothe associated with 'le bourgeois grossier et sédentaire'. See Hess pp.15-24

La Potherie, Gassendi's secretary, referred to Naudé as 'the arbiter of his [Mazarin's] most secret councils', La Potherie to Montmor 1667. La Duchesse d'Aiguillon 1879 pp.202-7

It was she who gained for Pascal senior his tax inspectorate post in Normandy. Tallemant des Reaux Historiettes II p.107 and Mme. de Monpensier Mémoires 1730 I p.18 thought the Duchess a lesbian.

41 Gabrielis Naudei Epistolas 1667 p.201, Aix Méjanes 10267 f.71, Carpentras 1875 f.8.


43 Naudé claims that he is 'on heat to see it completed' and that its value 'is not to your coterie of friends but to the whole orb of learning, who will be fascinated' op cit p.201. This is not the Naudé depicted by the historians of ideas; the jaded sceptic who mocks all possibility of human knowledge.

44 Instruction...des Rose Croix 1623 pp.30-33 This passage is a direct attack on Christianity backed by a line from the Epicurean poet Lucretius: 'tantum religio potuit suadere malorum'—the side of Lucretius Gassendi never quoted; see PROVENCE MENTALITIES pp.10-11, 33-4.
iii) THE CLEVER FELLOWS

Historians have puzzled over Naudé's apparent inconsistency in being an enthusiast of Gassendi and the Aristotelian philosophy of Cremonini. This is due to an elementary confusion between hatred of scholasticism (often secretly anti-Christian in character) and rejection of Aristotle (much rarer than has been supposed). Naudé admired Cremonini because he used Aristotelianism to bolster up mortalism and atheism — reversing the scholastic interpretation.¹ Another leading libertin Aristotelian, from atheistical Padua, Fortunato Liceti, was one of Naudé's trusted intimates. Galileo, who certainly encountered Naudé during his frequent stays in Italy, was likewise on familiar terms with Cremonini and Liceti. Liceti, despite his Aristotelianism, was a correspondent of Gassendi.² But surely Galileo was not like Naudé attracted to Paduan Aristotelianism because it rejected Christianity in the name of a secular science of matter? Surely he was not a correspondent of Gassendi because he was a secret admirer of Epicurean atomism? A good deal of evidence suggests that we can no longer reply to these questions in a manner which clears him of the suspicion of harbouring secret unbelief. Galileo was a secret admirer of Lucretius and the atomic theory, but frightened to name Epicurus even when treating his ideas. Recent research suggests that secret atomism was nearly an issue at his trial.³ Gassendi's letter to Galileo, shortly before his arrest, compares him to the god-like Epicurus who had thrown religion down before the feet of oppressed humanity.⁴ Would Gassendi have written this (such a dangerous thing to write in the circumstances), unless he knew Galileo would understand and approve? Gassendi's friend Fabri wrote of 'those who fear novelty and treat every new idea (in astronomy and physics) like a foetus in the time of King Herod, so as to prevent changes in the laws — the Church, the State, morality, politics.' Gassendi wrote
to Galileo calling his Epicurean physics a *foetus*. It is clear that this term is another indication of the strength of the sceptical underground in the heart of the Catholic Church. Although Fabri repeatedly condemned Galileo, Copernicus and atomistic materialism in his writings it is clear that his private conversations with Gassendi would have been very different. Galileo confided his Copernicanism, his theory of tides and his law of fall to an interested non-scientist, Paolo Sarpi. Sarpi's papers show him to have subscribed to all points 1-6 held by the Tetrad.

Historians are rightly sceptical of guilt-by-association arguments; unfortunately they are not always so sceptical of faith by-association. Diodati, the fourth member of the Tetrad, was the life-line by which Galileo's prohibited writings and his letters reached Gassendi. Naude's letters to Diodati show that he was on closer and more passionate terms with him than with any other member of the Tetrad.

Why did Galileo confide in Sarpi when his alleged admiration for the Jesuits would have made a confessor from their Order a more likely choice? Sarpi's interest in the new science, like Naude's, arose from his delight in the discovery of a new lever which would overturn Christianity and scholasticism. It looks very much as if Sarpi was to Galileo, as Naude was to Gassendi: a hot line to the religious and political implications of their discoveries. As Naude put it, on the eve of Galileo's arrest: 'These late revolutions in the sciences, which are but the threshold to those to come, have done more to threaten [the Church] than all the tired heresies of Luther and Calvin.' Many years earlier Naude had puzzled over how to curb the mysterious power which led the scribbling of two reformers in their studies to plunge Europe into bloody confrontation and war. The Tetrad saw objective science, whether in the spirit of atomism or
pagan Aristotelianism, as a curb on the dogmatic certainty of a faith which the reformers had been able to forge into a licence to kill.

There was nothing superficial about Naudé's application of the new science to politics. The sub-title of his main treatise on political coup d'états, 'la science des princes', indicates that Gassendi's secularised physics provided his model. He regarded his task of deducing principles of action from observed facts, as a continuance of the work of Tacitus and Machiavelli, to bring a new realism to political science.

Following Bacon, Naudé denounced scholastic science, Christian moralists, military theorists and doctors, for one common failing. Their books proclaimed theoretical principles, deduced in absolute terms, which could not be accommodated to practice. The same point was to be found in the writings of Gassendi and Galileo. Galileo argued that theory was to practice in the same relationship as an accountant's gold to his counters. Gassendi used a mathematical analogy: although theoretically a circle and its diameter were incommensurable; in practice, a mathematician might accommodate them as closely as he liked by using decimal fractions. Naudé related the gulf between theory and practice to another Gassendist theme. The Pythagoreans and the Druids did not write books but passed on everything by word of mouth. Their disciples were then forced 'to make their own circle' round the intimacies and particulars of the subject matter on which the individual science must be brought to bear. Artisans, sailors, architects and artists followed Pythagoras in this by putting nothing in writing. Mechanics was a paradigm of all the other sciences: the unsurpassable precision of mathematical ratios did not take account of the practical application. 'Their utility, rather than exact truth should be our criterion.' It seems rather
mundane that the end-product of this high-powered philosophy (the last point is to be found in Newton's introduction to his *Principia*) should be the justification of political lies:

'Natural justice is universal, noble and very philosophical. Yet it is often disregarded and highly inconvenient in everyday use. We often substitute what I call artificial justice—or *politisque*—since this has been tailor-made to fit the daily needs and necessities of commonwealths [police].'

Naudé's clever juxtaposition of the words *police* (or medieval body politic) and *politisque* (which was Machiavellian) signals the transition, then in the making, between the medieval corporate state and the modern police state in which authority is artificial and imposed from above. The new conception, according to Naudé and La Mothe Le Vayer, rests on fraud, secrecy and force. Yet Christianity must not be discarded altogether. It remains as the nominal principle, of which the *science des princes* is the application. A key to the revolutionary character of this change is to be found in the *Tetrad*’s use of the word 'nature'. They saw it as an evolving principle, whose limits were determined by observation. But this scholastic use of 'nature' enabled them to disguise their rejection of traditional association with a universal 'minimum' morality.

Both Naudé and La Mothe wished to gird the scholastic tradition of political thought—still extremely powerful, and dominant in Spain and the Catholic universities—which made God's law, natural law and canon law prior to the secular sovereign; which allowed the deposition of kings, by revolt or by the Pope himself; which stigmatised rulers who broke the moral law as tyrants. Instead, they modelled their sovereign on the treacherous, lecherous amoral despots portrayed by Tacitus. Since their true principles of political science were drawn from experience of human nature—not Christian belief—the analogy between Christian principles and practical applications was a sham.

Gassendi's physics provided the underpinning this system needed,
by placing the authority of the nature of things behind the advocates of force and law, rather than the advocates of natural justice. He wrote in 1640:

'You ought not to think it absurd that perpetual violence should exist in nature. Violence may be regarded as natural by the very fact that the author of nature brought violence into being so that it might be of service in the generation of nature's entities. Nothing changes without some reciprocal reaction in one thing or another which suffers violence.'

This comes from a treatise in which Gassendi made a first sketch of his 'Newtonian' physics, still in a very rudimentary state. But, unlike Newton, Gassendi went out of his way to draw Hobbesian conclusions from the new laws he was uncovering in nature. Notice his use of the term 'author of nature'. If 'author of' were removed, the metaphysical implications would be tremendous, but the change, in scientific meaning, nil. Gassendi's MSS for the Epicurean physics, written in the 1630s, showed less repugnance than his published works about using such forbidden words as 'Nature' or 'World Soul'. According to Bernier, Gassendi was secretly sympathetic to this idea. Around 1636 Gassendi omitted all such references, though he continued to use metaphors with animistic implications. The physics that Gassendi was defending was specifically Copernican physics; and it is interesting to note that one treatise in the 1642 book was dedicated to Naudé. So was part of Boulliau's massive Copernican physics, published a few years later. These dedications do not prove that Naudé understood modern optics or astronomy. But he was no wealthy aristocratic patron. His name was inserted solely because of his passionate interest in the new science; an interest which was primarily ideological and based on his loathing for Christian Aristotelianism, in a personal and a political context.

The relationship between Gassendi's physics and a new morality did not escape J. B. Morin, who commented: 'Everything is violent in Gassendi's philosophy.' This was absolutely right, since Gassendi
abolished the scholastic distinction between natural/violent and natural/unnatural. His *vis*, the old term for violence, became 'force'—defined in a Newtonian sense as something applied with a given magnitude and direction which caused a reciprocal change in state. Gassendi's favourite image for illustrating his laws of motion, and the relationship between them, was the firing and recoil of a gun. It recurs throughout the pages of his *Syntagma*, being employed to illustrate both the transmission of light and of messages through the nervous system. It was applied to the violent upheavals under the earth's crust or in the sun where Gassendi was confident that his laws would hold. He applied it to comets, which he argued were shot from the sun like a bullet from a bombard. Halley rightly pointed out that Newton might have expounded his planetary laws more simply by analogy from artillery. If Newton resorted to this analogy rarely (in his *Systema Mundi*) it may well have been because he wished to avoid the image of God as an artillery man making random pot shots into space. If the connexion is much clearer in Gassendi's writing than in Newton's, another reason might be that Newton was in a position to generalise abstractly from concepts which owed their genesis to Gassendi. Newton was equally careful to eradicate any public hint of the Epicurean origin of the new physics; such Hobbesian phrases as 'we are drawn to pleasure as naturally as a stone is drawn towards the earth' were light-years away from the *Principia*.

We have mentioned the relations of all four *Tetrad* with Fr. Mersenne; but not their scientific character. Mersenne published works by La Mothe Le Vayer on music, and by Naude on navigation, in with other material of his own. In his classic study of Mersenne, Fr. Lenoble was unable to ignore his subject's relationship with all four members of the *Tetrad*. But he did his best to minimise and misrepresent them. They clearly damaged the credibility of Mersenne's
public position, frequently reiterated in print, that even moderate sceptics should be burnt at the stake and were not to be considered human. Lenoble credited Mersenne with Naudé's treatise on navigation, in which the first submarine-galley was designed. He played down the fact that La Mothe Le Vayer, as well as Gassendi, had written against hermeticism at Mersenne's bidding. When La Mothe thanked Mersenne for 'not blaming the sceptic who remained under the obedience of faith', Lenoble misquoted to convey exactly the opposite sense. Lenoble's version is consistent with the view, frequently expressed in Mersenne's books, that the sceptic who hypocritically professed Christianity, or pretended to attack atheism, was a greater danger to the faith than any heretic. La Mothe Le Vayer's version, on the other hand, suggests that the sceptic may conform to the Catholic faith publicly, whilst conducting an unlimited questioning in private. Which was Mersenne's real position?

Mersenne fully shared the politique view of absolutism and the French State. He was passionate in his admiration of the privately circulated writings of Hobbes on politics and Gassendi on Epicurean physics. His view of morality was purely egotistical and relative, dismissing the scholastic alternatives as if in a fit of absence of mind. De Valois was not only the patron of Mersenne but the proprietor, in feudal terms, of the Minime House in Paris.

The Order remained closely identified with the French monarchy, and very much under its control at an international level. They staunchly defended raison d'état—contrary to normal scholastic teaching and—apart from the Jesuits—had more devotees of science and scholarship in their ranks than any other Order. Their control was of great importance to the government. Richelieu may well have entrusted Mersenne with a secret mission to the Dutch; Mazarin certainly entrusted Mersenne and Naudé jointly with confidential
business on their visit to Rome in 1644. Members of the Order, at a time of massive government borrowing, wrote treatises defending usury and the Dutch approach to economic management. Gassendi's libertin friends, such as Saumaise, shared this public commitment to a more rational system of economic management. The Church upheld a legal ban on usury till the Revolution. Traditional objections to lending money at interest were not just legal. They were buttressed by appeal—whether scholastic or Aristotelian—to universal cosmological truths. Nothing could grow as a function of time, because time was not a real entity. It was a gift of the divine nature, who made it free to all; it did not increase wealth but subtracted it (through mortality), showing the vanity of worldly possessions. But Gassendi's philosophy of time made it 'real, independent, uncreated': It became the cause of acceleration, the cumulation of increments in mathematically predictable manner in Galileo's law of fall. In Kepler's ellipse, it determined the apparent inequality of changing velocities. To theologians of the period, nothing seemed a more sinister example of the link between science and atheism than Kepler's discovery of planetary variation in speed. Although the ellipse has been presented by modern historians of science as a major break-through, even traditionalists were prepared to abandon the circle. Few actually believed that circles were more than a calculating device, necessitated by Greek methods of trigonometry. The main reason for the absence of any open discussion of Kepler's equal-areas rule in the first half of the century, was not just its technical obscurity but its theological implications. If the world had a perfect Creator, why did the planets not imitate his perfection by uniform motion of some kind? Gassendi's friend Fabri, who understood Kepler's principle and probably accepted it, resorted to absurd disguises in order to expound it in his writings. He solemnly
drew the reader's attention to its atheistic implications. As a Grand Inquisitor, who had in his youth been twice interviewed by the Inquisition and imprisoned for his cosmological errors, Fabri must be regarded as an authority on such matters. Apart from Copernicanism, irregular planetary motion was one of the main reasons for the ban on Kepler's works. Yet historians of science have attributed the lack of continental discussion of this vital principle—the corner-stone of the *Principia*—to sheer ignorance.

This is why Boulliau, in his *Astronomia*, went to inordinate lengths to circumnavigate the equal-areas law in an oblique but theologically acceptable manner—whereas he had no qualms about the elliptical orbit or the possibility of an inverse-square law. That is why Roberval, in his *Aristarchos* freely discussed heliocentrism and gravitational attraction as an inherent property of matter, but not the variable speeds. That is why Gassendi omitted Kepler from his lectures as *regius professor* 1645-8, except for his comparison of the cosmos to the Trinity, which Gassendi privately regarded as ridiculous. On the other hand, we do find, buried in the *Syntagma*, clear evidence that Gassendi understood the equal-areas law and realised that it made the Ptolemaic equant, which saved the fiction of uniform motion, into no more than an aid to calculations. There has been confusion because uniform motion itself was a sacred principle, even though the mathematical devices needed to attain it were mere gears and cogs. The equant, in the eyes of the Church, was a mere hypothesis; but that the divine mover imposed uniform motion on the planets at creation was a vital argument against creation by chance. In these circumstances the dedication by Fr. Boulliau of that part of his *Astronomia* which circumvented this delicate question to Naudé, the most purely atheistic member of the *Tetrad*, acquires a new significance. So does the fact that Roberval—who collaborated
closely with Gassendi on the new physics in the 1630s and 1640s and was his colleague and successor at the Collège Royal—was a notorious unbeliever, even by the lax standards of the time. Fr. Boulliau, a converted Huguenot and a regular correspondent of Naude, had views not commonly held by Catholic priests. They led him to take refuge from Europe in the Middle East, where he found Islam in every way a superior religion to Christianity.

No-one who studies the letters and papers of Chancellor Séguier, or the criticism of French absolutism, made from the 1630s, can doubt that popular violence was directed against the increasingly arbitrary and violent character of government. The government, particularly in its use of troops, intendants and tax collectors, grew steadily more violent and arbitrary in its actions; and this reached its climax in the Fronde. From the 1630s there was a strong inclination among French intellectuals to see forces, and their random combination, as the true natural principle behind the apparent cosmic harmony. In this context, Kepler's astronomy appeared in a quite different light to its post-Newtonian 'law-giver' image. The acceleration and deceleration of the planets, relative to the sun, was theologically unsettling. Until Newtonian gravitation was understood, the arbitrariness of the 'equal-areas/equal-times' law was puzzling. Kepler's own exposition, which emphasised that a 'force' (unknown) in the planet and a 'force' (unknown) in the sun produced a 'balance of forces', variable according to a fixed geometrical proportion, emphasised his own agnosticism about nature's laws. Kepler later attempted to cover up this 'cartload of dung' of pure equations with a complex of geometrical and musical harmonies. It was exactly this attempt to restore the idea of a creation with a harmonious or humanly intelligible structure which Gassendi's circle rejected. The emphasis on vīs as the great force of life and nature (universal in matter) in
the atheistic Theophrastus (a work which drew on the ideas and vocabulary of the Tetrad, especially Gassendi) shows that Kepler's natural balance of planetary forces would strike a contemporary agnostic as evidence that nature had no homocentric architect. 39

Analogies between natural forces and absolutism at this time were commonplace. Renaudot, Richelieu's propagandist, argued: 'Just as God never intervenes in the universe directly, but only uses natural forces, so our king relies on the intendants.' The coup d'état is wrongly regarded as a crime against natural law— it is no more unnatural than a divine miracle. 40 Similar analogies are found in the works of Gassendi and Mersenne. 41 This was purely at the level of propaganda. But the frequent use of galleys, or their oarsmen, to illustrate the new concept of force implies that society was furnishing a model, rather than a metaphor. Kepler himself had insisted on the imagery of the 'oar' and the demonic 'oarsmen' keeping the planets 'balanced' against the etheric current from the sun. Both Roberval and Gassendi pictured gravitational 'rays' as banks of 'magnetic' oars. Roberval used the oarsmen to illustrate that 'action and reaction were equal and opposite'. Fabri used the example of the bull's pizzle, applied to whip rowers who fell out of step, as an illustration that all geometrical curvature (even when idealised on the pages of Euclid) must be a measure of muscular tension, exhibited at certain points of inflection. The animistic implications recall the vis of Theophrastus. The concept of a universal mechanism recalls Gassendi, for he went on to generalise this to the muscles in the oarsmen, the explosive power compressed into gunpowder, or the tension in corpuscles of electricity. Such ideas were crucial in liberating the notion of force, as something geometrically expressible in magnitude and direction, from earlier models based on a hierarchical relationship between actor/agent or a
magical emanation.  

There can be no doubt that for the popular mind, as well as for intellectuals like Gassendi and De Valois, government was being increasingly identified with arbitrary violence: 'It is now widely suspected that the intendants' whole mission is to be nothing but violence, the exaction of whatever sum is required over and above ancient customs', 'The intendants now mean no more to the people than the strong-arm agents of the tax-farmer.', Archbishop Montchal, one of Richelieu's leading opponents, put this case to Gassendi, whose scholarship he admired, and whom he wished to win over to his cause:

'It is one of the maxims of Richelieu's finance minister, Bullion, that all he needs is to create a jack-in-office (a government post, never mind its function) in order to pump up funds into the public purse. He sees himself as a kind of financial engineer—a sort of Archimedes—who by the use of a lever, or that convenient device [for adjusting a gun-barrel] the screw-jack, can set the most enormous machines into motion.'

Montchal's remarks are confirmed by historians of politics. The use of mechanical metaphors to describe the State was a hallmark of Richelieu's style of government. They replaced the old Aristotelian-Pauline metaphors of the body politic and its hierarchical three estates, with traditional functions and privilege. Montchal and Gassendi had little in common; the former was a convinced astrologer who had visions of Richelieu after his death roasting in hell. But his argument seems to have struck home to Gassendi, who reported to De Valois that after being closeted with the Archbishop many hours, he was withdrawing from his new appointment as Agent General for collecting all clerical taxes throughout France. Further evidence that Montchal's arguments were effective is to be found in Gassendi's letters and writings. Montchal advised that absolutism was contrary to medieval traditions: Popes should always consult a council of the Church, and kings their three estates—a practice which had been
abandoned since 1614. Gassendi later argued strongly on the need for a States General to restore the aristocracy and clergy to their rightful place in government. Only the atheistical politiques defended absolutism, Montchal argued, hinting at the views of Gassendi's friend Naudé, published the year before:

'It is the opinion formed by the common people about the king's religion which is the main bond of their loyalty. If the people suspect that trust misplaced they would blame their ruler's wicked unbelief for all public disasters. Then the government would be obliged to depend on force to be obeyed—and the example [of the recent peasant revolts] shows that force itself breeds resistance.'

A very similar passage is to be found in Gassendi's posthumously published Syntagma coupled with a long attack on tyranny, high taxes and unnecessary military expenditure. At this time, Bullion's colleague in the royal finances, Bouthillier, was warning: 'If the war drags on we shall be fighting a civil war before long.' Gassendi's patron, De Valois, was Bouthillier's client. This suggests that by 1641 a substantial faction among the supporters of absolute monarchy were coming to feel that its secularist features—raison d'état, reduction in the wealth and power of the Church, ignoring local privileges—were being taken too far.

This is confirmed by the fact that Gassendi, De Valois and Bouthillier's son Chavigny were all involved in the intrigues of the Fronde against Cardinal Mazarin. Fr. Michel's pamphlet attacking Mazarin, in 1649, which can be traced back to Gassendi's circle, argued: 'He aims at the extirpation of our religion, and is a wolf who exhorts shepherds to hunt wolves. By reducing the government to depend on force, rather than consent, he has alienated the people's heart from the Bourbon dynasty.' It went on to suggest that De Valois, 'as the last remnant of the ancient tree', had been 'legitimised by virtue' and should resume the throne of his ancestors.
De Valois had mortally offended Mazarin by turning down his offer of 'an apanage fitting your daughter's royalty' on condition she married Mazarin's nephew. Instead she married the Duc de Joyeuse, who also had a claim to the French throne, through the house of Guise. Naudé and La Mothe Le Vayer, on the other hand, were strong allies of absolutism; soon to be joined by Gassendi's free-thinking disciple Cyrano de Bergerac. Naudé wrote in the same year a long defence of Mazarin's nobility of birth—attacked in Fr. Michel's pamphlet, which had claimed his father was a converted Jew—and placed a satirical reference to De Valois' misgovernment of Provence in his opening paragraph.50

The connexions between the concept of force in the new physics and absolute monarchy do not need to have been made consciously. Jung has discussed the importance of the subconscious archetype, which may lead us to reverse our previous direction, because something which was previously hidden came to the surface.51 Whether or not this happened with Gassendi, it is interesting to note that his treatise on force in physics, written in 1640 and published in 1642, was in the form of a letter to Pierre Du Puy. Du Puy personified the relationship between the new science, scholarship, secularism and the monarchy.

It was Du Puy who had master-minded the government side in uncovering the legal precedents for subordinating Church to State, and exacting whatever taxation the Crown needed; a task which had been financed by Richelieu himself.52 Gassendi's definition of force and inertia were complementary. Force was defined as whatever induced change of state; inertia as a state of rest or uniform motion. Force, applied externally, was the only source of change. In Aristotelian physics motion was teleological, a principle internal to the mover's essence. Motive force was traceable in series to some unmoved mover. For Gassendi, motion was a relative property intrinsic to material
If we apply to his "planetary muscle" the mechanical laws Cassendi gives for animal muscle (00 11 p 510-12) then earth/sun follow the rule of the wedge, pulley or lever, or wheel balanced with weights (tension). (vitraus is 5666)

rotating weight

gravitational attraction: varies with inertial motion of planets: distances

If $P_1$ (planet) is a wedge then the force $OP_1$
$P_1N$ of $N$ towards $PX$ as $PN$ is to $FX$
and along its actual orbit $PD$: as $PN$ is to $NX$

$P_1$ is a force solved into $PN$, $PX$

If $PD$ was removed (i.e. sun) it would move with force $PN$, $KN$ alone. (see Newton I principles: Axions)

Cassendi: saw comets, and planets as possessing animal force and muscle.

Cassendi understood this intuitively. thus is no direct evidence he applied it geometrically.
particles through collisions with one another. Newton realised a profound truth when he described Gassendi's atoms as 'God's body'. Their sum total was the old 'prime mover'. All this related closely to the Hobbesian principle of 'that mortal God' the State. Both Gassendi's atoms, and the human citizens, were divine — the sum total of repulsive and attractive forces. As early as 1636 Gassendi saw in the parallelogram of forces a universal principle, accounting for the formation of planets and the resolution of planetary orbits through composition of inertia with a central force; the motion of the bones in humans and animals; and the brain's response to emotional stimulus. It was the deistic Roberval, whose lecture supplied Gassendi with the mathematical principle of composing two forces into a resultant through the parallelogram. He wrote to Hevelius in 1650: 'We (Gassendi and I) have rebuilt the structure of mechanics, from foundations to attic, as new: rejecting all the ancient stonework.' Then followed an account of a work, using composition of forces, centres of gravity and centres of percussion as its principles. Although 'the details may be impossible to unravel' (one of Gassendi's favourite qualifications) 'everything from minerals to planets, from technology to human thought, can be analysed by the composition of simple motions.' The fact that this work was never printed and has disappeared indicates a profoundly reductionist anti-religious character. But traces of the same programme are embedded in the interstices of the pseudo-traditional Syntagma.

Unlike Roberval, Gassendi's method of building—after 1642—was to utilise all the old stonework he could find, in order to disguise the real implications of his thinking. But there can be little doubt that Roberval the mathematician and Gassendi the astronomer and physicist continued to work secretly together, even whilst Gassendi
was resigned to discoursing at length on the argument from design or the immortality of the soul. 57

The usual method of historians is to make clear and intelligible assumptions about motive and belief and then interpret the known evidence in the light of these assumptions. A principal merit of the studies of Gassendi by Hess and Bloch was that they scrupulously avoided, as far as possible, any a priori assumptions in these delicate areas. In the case of Gassendi, there is a particularly difficult balance to be struck between leaving the reader with a mere accumulation of impressions, and presenting a problem which contains so many hidden variables as clear-cut and settled. By presenting Gassendi's mind from so many different perspectives, it is hoped to avoid the uni-dimensional role allotted to the individual in so many histories of science and philosophy; I hope to bring Gassendus Redivivus before the reader, with something of the force and plasticity of the original.

It has been argued that Gassendi was a much more original and coherent thinker than has previously been supposed. This means endorsing Pintard's view that he was 'un homme double'. He accepted Catholicism as a necessary brake on undesirable social change; whether initiated by Protestants, peasant rebels, or acquisitive and tyrannical royal officials and ministers. This acceptance went beyond mere expediency: his historical analysis of ideas and society in evolutionary terms, confirmed the view that those institutions which were socially useful, or appropriate, must be accommodated to the horizon of popular understanding. At the same time, he believed that the enlightened few, like himself, had in every age transcended the credulity of the vulgar and pursued an ideal of science. This science itself was not static but progressively evolving from 'poetical mythology' to the more exact analysis of exclusively
natural forces. The political thinking of the Tetrad mirrored this duality; with princes acting from principles based on utility and realism, and peoples obeying their princes out of a belief in supernatural religion.

Gassendi's transition, from Tetrad to Compagnie, can therefore be seen as a change of gear rather than a dramatic reversal. Absolute monarchy came increasingly to resemble a Cyclopean monster which had run out of control; particularly under the influence of Mazarin, whom Gassendi's circle regarded (not implausibly) as an 'esprit fort' (or atheist) who based his rule on naked force and personal interest, rather than public utility. One evidence for this continuity is the interest of certain members of the Compagnie in the new science. Without the finance and supervision of Montmor and the Duchess d'Aiguillon—senior policy directors—Gassendi's works would not have been completed or published after his death. It is also clear that some of the members of the Compagnie (Seguier's own son, for example) were themselves from families which profited from, or supported, absolutism. It was not a disagreement about the nature of government, so much as a disagreement about how far certain principles could be appropriately carried in a given historical situation, which divided Mazarin from Gassendi. The sections on the State in Gassendi's Syntagma spelt out a powerful defence of the social importance of Christian belief, private charity, equitable and low taxation, the need for monarchy to avoid aggressive wars and wear a human face. This was clearly intended as an indictment of Mazarin. It was the programme of Bishop Godeau, the Provencal director of the Society, expressed in 1644:

'Cette raison d'État de defiance pleine
Qui croit pouvoir tout faire avec impunite
Est bien pour les tyrans un loi souverain
Mais elle est pour les rois soumise a l'équité.'
Notice that Aristotle's distinction between tyrant and king was crucial. This was exactly what Naude' and La Mothe Le Vayer dismissed as archaic scholasticism. The distinction could best be justified by natural belief in divine and natural law, as opposed to the doctrine of universal violence. This is why Gassendi had to bring back natural law and belief in a natural knowledge of God, after rejecting them both decisively as late as 1641.
iii) The Clever Fellows

1 Pintard Libertinage Erudit 1943 pp.106-8 Naudé Epistolae pp.97, 104

We must keep the ship of Aristotle afloat...in the teeth of the scholastic crew...for Cremonini Aristotle is a cultus, a religion...he soars like an eagle above our age.' Cremonini was under close inquisitorial surveillance for his atheism. Naudé's views on Aristotle—far from revealing him to be an eclectic sceptic—are identical to Cassendi's. Like him he wished to apply the scrutiny of Renaissance scholarship to Aristotle's writings; and he believed that Aristotle's works had an esoteric inner core. p.102 Like La Mothe Le Vayer he believed the 'true Aristotle was an atheist'.


3 I am grateful to Prof. U. Barcaro of Pisa for discussing recent work on Galileo with me.

Two New Sciences Dover ed. p.25 'You are travelling along toward those vacua advocated by a certain ancient philosopher.' 'But you do not add "who denied divine providence"—an inapt remark made on a similar occasion by a certain antagonist of our Academician [Galileo].'

4 See THE GALILEY EXPERIMENT pp.341-344

5 O.O. (VI) p.92


7 Naudé Epistolae p.666 1639 Naudé to Diodati

'Thus may God love me [and not otherwise] that he may keep your voluptuous inclination towards me (propensae voluptatis tue) that it may never be never be erased from my soul...there is nothing I would not do for your sake...I derive some hope for my passion because I have declared it openly to you, not without a common pleasure (communi voluptate). You are no blood relation, yet I regard you as a father.'

8 Both Naudé and Sarpi did some amateur work on magnetism. Both had been on close terms with Cremonini. Naudé met Sarpi, whom he called 'this Epicurean who hates Rome'.

9 Pintard Libertinage Erudit p.473 "J'ai peur que ses vieilles herestes de Luther et Calvin ne soient rien a l'egard des nouvelles que les astronomes veulent introduire...par leurs terres lunaires ou plutot modes celestes. Car la consequence de celles
C56

189

cy sera beaucoup plus perilleuses et introduira bien de plus étranges révolutions' 1637. Compare Chatsworth: Hobbes to Earl of Newcastle 1633: 'I hear say it is called in Italy a book which will do more hurt to their religion than all the books of Luther and Calvin, such opposition they think between religion and natural reason.' These sentiments are so similar, and so close in time, that it looks as if Naudé's letter—to the Copernican astronomer Boulliau—was passed on by some means to England.

10 C. Naudé Science des Princes où considérations politiques sur les Coups d'État 1639 (ONLY 12 COPIES PRINTED)

11 Syntagma Militarii 1637 pp. 25-30, 52-7 cf. Principia 'authoris praefatio'

12 Op cit n. 10.

13 See PROVENCE MENTALITIES p. 81


15 Meinecke ed. cit n. 83 pp. 237-9. Except in the writings of Jesuits, favourable to raison d'état (like Botero), who were doubtless sincere. There is a parallel between the Jesuit attitude to raison d'état and the new science: in both cases clinging to Aristotle like leeches, whilst trying to absorb new techniques.

16 De Motu Impresso... 1642 I ix.

17 Fr. Brundell 'Gassendi' thesis for University of South Australia pp. 211-3 ascribes this gesture to Gassendi's piety. But see Aix Méjanes MS 1026 f. 69 Naudé to Gassendi, May 1633, warns him about changing intellectual climate and intrigues of the Jesuits: 1636 f. 71 arguing that the foetus, which up to then he could not wait to see in print, was as dangerous as Bodin's Heptaplomeres (a deist attack on religion).

18 O. O. III p. 420 The next in series was addressed to Boulliau, and Boulliau's Astronomia Philolaica 1644 had its first section dedicated to Naudé.

19 Alae Telluris Fractae 1643 p. 13, 0. O. I p. 350, II p. 48, Lumaertani p. 34 see n. 51. Whilst acknowledging that the nature of gravity may be unknowable, Mersenne wanted to measure the separate components (the rate of descent and the impressed force) on the shot by means of pendulums. (1647)

20 Though not from Newton's private thoughts, Cambridge Add. 4003, where he jots down the suggestion that God is the anima mundi, that matter is his body and that motion arises from thoughts in God's mind, which is space. This conception is very close to that of Gassendi's suppressed Epicurean physics. 'No wonder that atheists arise to confound, God with matter,' he wrote. Gassendi's definition of force, inertia and the inverse square law follow: pp. 24-32. He ended with a discussion of Epicurus.

21 Cogitato Physico-Mathematicus 1644 ed. M. Mersenne pp. 240-60

22 Since Naudé's sketch was an elaboration of an actual craft rowed under the Thames by Drebbel, Lenoble committed a double error.

23 Vie du M. Mersenne 1648 H. de Coste (dedicated to De Valois) p. 47 gives the authentic version of this quote. Lenoble Mersenne 1943, p. 195.

24 Impiété des Deistes 1625 dedicated to Richelieu pp. 584-5. Mersenne suggested a novel definition of God: pure ego: his might is right. Mersenne 1943 He was every bit as fanatical in his enthusiasm for Gassendi's 'godless' physics, in MS form (1633), as the atheistic Naudé: 'Here Nature is portrayed more perfectly than any other writer has done before.' pp. 419-20
0.0.1 p.639a See GASSENDI & ASTRONOMY for evidence that the observation in 0.0.IV were aimed at checking Kepler's guess by observation.

R. Tack Die Erkenntnis Theorie bei Pierre Gassendi 1974 p.33 finds it hard to accept those modern scholars who try to pass Naudé off as a serious fideist, or even a Christian. Naudé is under the 'suspicion of secret atheism'.

Baillet Vie de Descartes p.176 'Libertin et deist', L. Auger Roberval 1962 p.10 Mersenne, Mydorge and Pascal were his intimates, but all regarded him as 'un homme dissimulé'.


T. Renaudot art. Larousse and Recueil General des Questions Traitez es Conferences du Bureau d'Adresses 1655-6 4 vols. The idea was 'free discussion—but nothing against God or the King'. It is easy to see why the Tetrâ despised these gatherings of 'bourgeois gros et sédentaires'. They were translated into English.

See GASSENDI AND THE CHURCH n.149.

Novum Observationum Physico Mathematicarum tomus III 1647, H. Fabri Physica 1 1669 p.229, pl-33, for the significance of the galley see THE GALLEY EXPERIMENT.


Montchal's reason for using Bullion as an example may have been that he had conveniently died the year before. The phrase is attributed to Richelieu himself in E. Thau Raison d'Etat... pp. 323-33, 385, 380-90. Scudéry, who was a client of De Valois, described the State as 'a grand marvellous machine operated by a variety of springs'. Sovereignty was described as 'aussi indivisible que le point mathematique' by Le Bret, Richelieu's propagandist, in a book defending absolutism, in 1631.

Op cit n. 45 p. 216 0.0. (II) pp.760-1.

O. Ranum Richelieu and the Councillors of Louis XIV 1963 ch.5 It is important to be clear that Bouthillier and De Valois were still enthusiastically implementing the new system—even extending it. But they were uneasy about the social and religious consequences for the long term.

This letter puts forward a serious claim to the throne, unnoticed by historians. It purports to be written by a hermit residing in the Camaduli hermitage, established on the family estate at Grosbois by De Valois' father. This hermitage is mentioned in Gassendi's correspondence (0.0.VI pp.170b and 386a). This does not imply that either Gassendi or De Valois endorsed the hermit's views. One characteristic touch: the hermit compares the French people to the galley slaves who had to leap into the sea, when they beached without a port, and carry their overseers above their heads to keep them dry.

G. Naudé Jugement de tout ce qui est imprimé contre le Cardinal Mazarin 1649. p.5 De Valois and Gassendi had just been arrested by the parlement of Provence.
51 This was Gassendi's own view. In comparing the mystery of the Trinity to the problem of trisecting the angle or constructing a mean proportional in the Delian problem (constructing an altar in duplicate proportion), he claimed to identify archetypical forms in the human understanding, not conscious, still less objective, connections 0.0.IV pp.68-9. This was how he understood the formation of scientific models (0.0. I p.149b'; among early civilisations.

52 Pintard Libertinage Erudit pp.92-3 Droits et Libertes de L'Église Gallicane 2 vols. 1638. Although the anti-clerical character of Richelieu's regime may puzzle English readers, it was part of the logic of absolutism; see GASSENDI AND THE CHURCH p.101n.70 and P. Blet Le Clergé de France et la Monarchie 2 vols. 1959. Much of the Church's income had already been handed over by the Crown to the rentiers p.195 and there was even a plan to 'nationalise' Church lands and pay the clergy from the rentes pp.488, 525 et seq.

53 Cambridge UL Add. 4003 f.27-30. Since Gassendi separated time and space from God— and matter was the only other objective reality—Gassendi's God was the totality of atoms. This explains his reticence in refusing to accept that we can know matter's laws of combination, or the nature of the ultimate particles. Was he equally reticent about the nature of God, because he secretly regarded God and matter as identical? Matter was active, because it was divine.

54 Navigating for Newton Times Higher Education Supplement 16.12.83. For Gassendi and animals see 0.0.II pp.510-12. This passage is clearly the source of Principia 3rd ed. pp.15-17 p.27. Dr Whiteside Mathematical Papers VI pp.98-104 does not mention Gassendi as a source for this concept.

55 It has long been realised that Newton used Roberval's tangent method, though Newton was assumed to have invented it independently. MS BN f.fr.9119, f.408 'Sur la composition des mouvements pour tirer des tangentes aux lignes courbes' (1635?). It is undated. This MS was copied by Du Verdus, who brought it to Hobbes. There is a letter from the mathematician Wallis, from which it is clear that Newton might have derived the method (which he used like Roberval on the cycloid) from either Wallis—with whom he worked closely—or the Cavendishes, Auger Roberval p.44; compare Principia pp.107-9.

In the Cogitata of 1644 Mersenne applied Roberval's method to the ballistic parabola pp.115-6. See also Whiteside Mathematical Papers I pp.416-18.


57 See, for example, the legally dubious expedients to which Gassendi resorted to ensure that Roberval inherited his Chair in Mathematics at the Collège Royal, like Gassendi he was befriended by the Cavendish family in Paris. See Mersenne 1943 p.415.

58 R. Allier Cabale des Dévots 1907 p.345 Finance minister Bouthillier was a member, which partly explains his prompt dismissal by Mazarin in 1643. The Lettre du Père Michel (n.49) claimed: 'He wishes to govern France through the atheistical politiques, who have taught him how to hold the balance of power in France and Europe. He plots to betray France and extirpate our religion.' pp.17-18.
59 R. Allier *Le Cabale des Devots* p.27 0.0. (I) preface.

60 0.0. (II) p.757a Even in the *logic* Gassendi brought in the Aristotelian theory of monarchy; p.35 'The tyrant is a wolf, therefore, the sheep hate him.' 'The king is to his kingdom, as the good father to his family,'

61 A. Godeau *L'Institution du Prince Chrétien* 1644 p.14

E. Tissand Godeau 1870 p.78 Although accepting the reason for raison d'état, Godeau wished to humanise it. He supported De Valois and Condé against Mazarin in the *Fronde*, protesting at the outrages by government troops.

62 Naudé believed that the king had the right to use any deception to remove (casser) 'droits, franchises, privileges, exemptions' of the subject.

iv) SCIENCE AND CANNIBALISM

Dostoevsky's Grand Inquisitor prophesied that humanity would eventually return from science to religion—a religion in which the Inquisitor himself had long since ceased to believe—because the attempt to build a populist ethics on science would lead to Babel and cannibalism. Is it anachronistic to attribute this line of reasoning to Gassendi and the inner circle of the Compagnie du Saint Sacrement? De Valois' letters to Gassendi, during the Fronde paint a graphic picture of human suffering, geared to an impending political, social and moral collapse. For this the policies of Mazarin, as criticised in the letter of Fr. Michel cited earlier, were partly to blame. But De Valois was too shrewd an observer to take the line of the Frondeur propaganda, and blame Mazarin for everything. It was not merely that Mazarin wished to reduce foreign and domestic policy to force and intrigue. The whole of French society—clergy, nobility, people—were hurrying towards their own ruin: 'each struggling to be master of the other and reduce everything to force alone.' One of his examples was the impending confrontation of rich and poor in Paris itself; meanwhile in the countryside the depredations of the rival armies created famine and refugees. Sacrileges, committed with impunity, rapes, theft, murders meant that 'terror is everywhere, whilst empty prayers sigh heavenwards'. Ironically De Valois' own soldiery had perpetrated some of the atrocities he deplored. But that merely underlines his helplessness, which he expressed in an ambivalent image of a libertin committed to the Compagnie: 'Only God and myself are immune from change. He is in eternity, abandoning the sublunary world to its own devices; I am still Prometheus, chained to my rock.'

The associations of Prometheus for Boulliau and Gassendi have already been mentioned in connection with light. In his doctoral
thesis on Epicurus, Marx chose Prometheus to be the emblem of truth devoured by the vultures of imperial Zeus. De Valois' account of rural life during the Fronde: 'There are such shortages they perish in the countryside, devouring each other like cannibals ... parents devouring their children,' fits the vulture metaphor. But Prometheus' theft of fire from heaven, though an emblem of political rebellion in a romantic age, could be an emblem of the need for scientific knowledge to be shackled, or restrained, in the age of Gassendi. If the arguments in the preceding sub-sections are sound, then not only the Tetrad but a number of exponents and critics of French absolutism equated the new realism in politics with the new realism in science. The significance attached to the term nature (physis in Greek) underpins both aspects of this revolution. It was analysing human nature, without the religious spectacles of sin or redemption; as a set of independent systems, rather than as a stage for a miracle play. Exactly the same secular principle of the isolated system was applied by statesmen to government and diplomacy: 'But so many chance circumstances intervene, that it comes to seem a necessity for the authors of the war to inflict all the curses of the furies on their miserable peoples.' Viewing the State as a machine, independent of natural or divine laws, led to cannibalism in the literal, as well as the metaphorical sense. For Gassendi himself the distinction between humans and animals was merely convention. Eating animals was itself a form of cannibalism. This is how it was described by the Pythagorean writers Gassendi admired. The early Gassendi, who denied natural law, regarded cannibalistic customs as every bit as valid as arranging precedence by the salt at table. Gassendi's enthusiasm for abortion and euthanasia, through State control, in the early 1630s reveals ethical views logically compatible with those of modern animal rights campaigners. It fitted Richelieu's
view that peasants had to be over-burdened, like mules, to keep them docile. But by 1639 utility itself was demanding a bridle on this purely utilitarian ethic, geared solely to the pain and pleasure of sentient beings. It is plain that Gassendi viewed the new paganism, like the freedom to speculate, as confined to a handful of like-minded spirits; those with the temper of philosopher-kings. His view of the importance of religion for the majority of mankind—those who were greedy for gold rather than 'with an inborn hunger and thirst after knowledge'—emerges in the following quotation:

'Hope is that anticipation of a future pleasure which keeps the soul on its toes, as if it had been purchased to strain its uttermost. That is why the ancients wrote: "The gods sell all labours"; for they pour ointment upon the labour itself, and provide a sweet foretaste or spice in the midst of burdens which makes the soul act promptly, out of its own consent, and does not feel compelled by necessity. But you must not think this applies only to peasants, for hope supports all men—whether it be hope of economic gain, gloire or pleasure. This is the meaning of the myth of Pandora's box. Nothing is more natural that in a life of toil the soul should conceive some hope to dull the edge of present trouble, and it is better to be completely deluded than to lose this gleam altogether.'

This should be contrasted with De Valois' Promethean theology: 'I hope for nothing.' To those familiar with the writings of Feuerbach, or the young Marx in Germany in the 1840s, Gassendi's sentiments will have a familiar ring. Nor need the resemblance be wholly fortuitous. Both read Gassendi at the time when they were elaborating their concept of religion as an 'aroma' of this-worldly relationships. Taking the passage in a contemporary context, here is the working philosophy of the Compagnie du Saint Sacrement. It was the total hopelessness of the galley slaves which inspired the Compagnie's missions to 'spice their burdens' and 'dull the edge of present trouble'. Reports that the slaves had mostly lost all religious belief square strangely with the view of modern historians that seventeenth-century atheism was invented by the theologians who refuted it. Equally important was the war which the Compagnie waged
against the Compagnonages, who had protected the wages of French
workers during the great inflation. Alleging the conspiratorial and
anti-Christian nature of their initiation rights, the Compagnie used
every method available to break the traditional associations.
Infiltration, the spread of a rival organisation—itself secretly
controlled by the Compagnie—the condemnation of the fraternities by
the courts, meant that by the end of the 1650s their campaign was
largely successful. One objective (a number of leading manufacturers
were members of the Compagnie) was improved productivity on a religious
basis. Glowing reports of the success of the new working spirit in
the 'atelier Chrétien' echoed Gassendi's observations about the need
for making 'the soul act of consent rather than necessity' and about
hope keeping the soul 'on its toes'. The convicts' name for their
new hospital, built by Gassendi's patrons Montmor and Aiguillon, was
Le Paradis.

The poor-relief, which became progressively more important as
Mazarin's obsession with delivering a knock-out blow to Spain grew,
was not merely of material value. It was a prophylactic against the
despair which could grip a peasantry which fell victim to the spiritual
crisis induced by soldiers, plague, starvation, or ruin. Both
Montchal and Fr. Michel had written of the alienation felt by ordinary
people from the monarchy, and of doubts about the real religion of
their rulers. They were political enemies of absolutism. But it is
instructive to turn over the dry, bureaucratic pages of Delamare's
classic Traité de la Police. Writing of exactly their period,
immediately before and after the Fronde, Delamare presented the
decline in religious belief among ordinary people as a prime reason
for the spectacular increase in unrest prior to 1662. Like Gassendi,
he argued that public respect for religion was the greatest single
contribution to public order which any government could make.
Delamare cited, as examples for the decline of religion, the increasing popular resort to sorcery, astrology, blasphemy; which he linked to new levels of dishonesty in trade, the growth of prostitution, and the decline of public order. The significance of Delamare's book, is that it chronicles the efforts of government—after 1662—to deal with poor-relief, prostitution, unemployment, emigration; all matters which the Compagnie had tried to tackle on its own initiative, and in secret, from the 1630s. Neither Gassendi nor Delamare believed in astrology and sorcery. They regarded them as criminal matters and evidence of an undesirable popular mentality. Delamare had a high opinion of the sciences, especially astronomy, which because of its certainty ought to be a model for legislators.\(^{11}\) This outlook recalls Gassendi's court sermon to the eight-year-old Louis XIV.

If we ask whether or not Gassendi believed that science and society were connected there can be no doubt of our answer. Knowledge of the nature of matter was a subordinate branch of the wider science, wisdom.\(^{12}\) He explicitly stated that the advance of scientific truth, however slow its progress, was related to the equally distant prospect of Plato's Utopia—the reign of the philosopher-kings. Gassendi's sympathies with such Utopian conceptions as those of Plato, Thomas More and Campanella were clearly stated, without being over-emphasised. But Gassendi went further than most Utopians. Whilst denying that Plato's state was practical politics, he argued that it ought to be a model (paradigm) to be approached, however remote it remained, by those whose minds were sufficiently 'golden' to grasp the message.\(^{13}\) This Utopianism sounded even more strangely on the lips of that apparently hard-bitten cynical politician, Gabriel Naudé. He regarded Campanella's communistic City of the Sun as more than a dream; it was a plausible blueprint.\(^{14}\) The key to understanding the contradictions of this circle is that they thought in a mathematical
rather than a prosaic manner. In standard prose, we expect to find a simple one-to-one correspondence between the elements of language and ideas in the real world. But in mathematics, on the other hand, there are certain definite principles, so abstract they do not seem to apply to any real object. As Gassendi and Naudé were at pains to argue, the exact ratios of mathematics make contact with the rough edge of the real world only through mathematical constructions, such as geometrical lines or complex numbers. A mathematical series, with ascending or descending powers, is needed to fit the exact ratio, as closely as is required within certain limits, to the physical situation.  

Once this has been clearly understood, it becomes evident why the Utopianism of Gassendi, Naudé, Sorbière and others of their circle, was not in contradiction with their rather cynical and deeply conservative attitude to contemporary politics. It becomes clear how Gassendi could apparently be intriguing as hard as he could, despite his illness, on one side of the Fronde, whilst Gabriel Naudé found himself on the other. Their circle tended to think in terms of very long political time-scales (consider that they had no belief in a last judgement and no inkling of the bomb). It was regarded as legitimate to pursue a variety of short-term or middle-term goals. This failure to enforce a political 'dogma' matches the failure of the libertins to insist on a single form of 'unbelief.' It explains why modern scholars have found 'libertinage' so elusive.

In Gassendi's case, material interest was an important element in his political involvement with the Compagnie. But his relationship with De Valois, transcended this — being evidently part of the programme to use the golden age as a model for political action here and now, however remote its chances of realisation. A good analogy is with Gassendi's vegetarianism, which made very little impact on the
rights and welfare of animals historically. Nevertheless, it affirmed his cosmic citizenship of the domain of sentient beings. The same applied to any social programme. Whether or not De Valois' efforts to get a more just society in Provence had any lasting effects on the welfare of ordinary Pruvencals, or provided—as Gassendi hoped—a 'mirror' for future rulers to imitate was only important in the short term. In the long run, Gassendi declared, all human institutions would be swept away, forgotten and replaced by others. What was the point? Perhaps, Gassendi speculated, just as private property had arisen from utility—to suit particular social needs and not by divine ordinance—it might one day be swept away by the same utilitarian criteria. Since cosmological and geological time-scales were so extended, this might belong to a very remote future. But it remained an ultimate possibility. Similarly, Gassendi's view of human nature—greedy, superstitious, tyrannical, timid—had its evolutionary perspective. Perhaps the quality of the race might change; the handful of golden spirits might become the race with time. Then the golden age would be realised, at some distant date, through utilitarian necessity rather than external compulsion. Gassendi's superior scientific knowledge of questions like geological time, mutability of species, and the semina theory of inheritance, gave his theory a sophistication unknown to Diggers and Levellers in contemporary England. A great deal of debate has centred on the question of which seventeenth-century thinkers were progressive or reactionary. It would be difficult to find two more profoundly conservative thinkers than Gassendi and Naude on the practical political issues outstanding in their day. But this did not rule out their secret rejection of supernatural Christianity or their dalliance with Utopianism in the corners of obscure treatises where it could do no harm. It is interesting to notice that the conservative Naude first
coined the term *scientific revolutions.*

Naude saw clearly (some might say mistakenly) that the long-term effects of the scientific movement would be more profoundly damaging to religion than any heresy. In the seventeenth century the interdependence of the social and political order with religion, and of both with the scholastic concepts of natural and supernatural, remained strong. This explains Gassendi's determination to play Zeus to his own Prometheus—himself driving the wedges which bound his new science to the rock of Peter. It accounts for the combination of interest in Copernicanism with conservative Catholic social policy in the work of the Compagnie. Gassendi wrote that future generations would laugh at the social and political institutions of the seventeenth century. Naude argued that neither the French nor the Papal monarchy would keep their institutional form indefinitely. Gassendi applied to his concepts the same reasoning that he applied to the semina. Only when external conditions were ripe would they be able to germinate. But they could lie dormant many centuries—until these conditions had come into existence.

This explains the very real detachment which Gassendi felt towards his own time; because of his sense of the immensity of astronomical time. It explains how he could combine that detachment with fears for the future of Christendom, France and the Papacy in the light of Mazarin's policies after 1644. As Mazarin used the Provencal galley fleet to raid the Papal States, in order to frighten the Pope into submission to his policies, or to detach Catalonia, Italy and Sicily from the crumbling Spanish Empire, Gassendi and De Valois looked on in horror. Likewise the advance of Protestantism in Central Europe, through a Swedish army under Mazarin's direction, filled them both with genuine dismay. After all that has now been said about the balance of faith and reason in the philosophy of
Gassendi, and in the ideology of the Compagnie, this combination of private scepticism, with a sincere belief in the Church, should no longer appear paradoxical. Mazarin, compared unfavourably with the Grand Turk or a 'mad Mullah' in the propaganda of Fr. Michel, became a Cyclops devouring human victims in the letters of Gassendi and Poussin. Only recently has Mazarin's systematic pillage of the French State, and the real magnitude of his personal fortune—dwarfing that of Richelieu—been brought to light by historians. It has been too easily assumed that his critics and opponents in the Fronde were animated by frivolous or selfish motives. Whatever we may think of the motives of Gassendi or the Compagnie, it is clear that their opposition to Mazarin rested on carefully thought-out principles—at once Catholic and utilitarian.
iv) Science and Cannibalism

1 0.0. (VI) pp.381-90.

2 Differenz der Demokritischen und Epikureischen Naturphilosophie (1841)
in Kapitel 1 p.799 Prometheus stands for the working class 'the law which holds the relative surplus population... in equilibrium with capital accumulation rivets the worker to capital more firmly than the wedges of Hephaestus.'

3 0.0. (VI) p.379 Reports of cannibalism were common, from the 1630s, in areas devastated by French armies e.g. H. Kamen, Iron Century (Cardinal) p.36.

4 0.0. (II) p.761b. Gassendi's hostility to French militarism was shared by St. Vincent de Paul and other members of the Compagnie. St. Vincent wrote in 1641 to finance minister Bouthillier (De Valois' patron) and to Richelieu himself, attacking militarism in these terms: "C'est une grand machine qu'une armée qui ne se remue que malaisément"... It is fed with immense sums of money, extracted from the poor. There is a similar passage in Gassendi 0.0. (II) 762a.

5 Gassendi drew on the classic essay by Montaigne Des Cannibales ed. du Seuil pp.98-103, Cyrano de Bergerac has the friends of the dead lunar philosopher drain all the blood from his body and shut themselves up with the corpse, eating and drinking nothing else for a week. Their only companions are very young girls, whom they struggle to impregnate, so that the philosopher's wisdom may not be lost. Voyage dans la Lune p.83

6 See GASSENDI ON LIFE AND SOULS

7 0.0. (II) p.497 Spes et quaedem futurae voluptatis praeensio idcirco tenet. Animum ad futuram illius fruitionem erectum, seu quasi intentum atque comparatum. Et quia vetus dictum est; Dii laboribus omnium vendunt ideo ipsa efficitur laborum quasi lenimentum, molestias omnes dulcore quodam veluti praegustato condient, animumque ad quid vis necessarium agendum ita comparans, ut ad exsequendum alacer, seu promptus, utroque suaviter. Heinc non modo agricolas ut spes alit sed omnes prorsus homines, qui quidem pene agant, foveat, sustenat, sublevat; cum nihil sit quod non me mercedis, gloriae, cujus rei, e qua volupta demeti possit operetur. Curte quoque pars in Pydixis Pandorae fundo proditum est, iure percrebuit; quarum nihil est magis secundum natura quam ut inter vitae labores animus quidpam cogitetur quo spem bonam concipiet quasi nempe non sit solamem praesentius, quo molestiam omnem delineat; unde et sibi adulator, seque ipsius potius deludit quam ut non spem quidpam affulgat. Compare the debate in verse about hope by Cowley (later Fellow of the Royal Society) and Crashaw (both in Paris at this time).

8 0.0. (VI) p.389b. Feuerbach Das Wesen des Christentums 1841 translated by George Eliot 'Religion is the sigh of the oppressed creature, the heart of a heartless world and the soul of soulless conditions. It is the opium of the people.' Marx 1843 Early Works Penguin p.244.

9 C. Abelly La Vie de Saint Vincent de Paul 1664 p.36 Bishop Gault and Bishop Godeau both commented on the hopelessness and irreligion of the convicts. It was this blasphemous rejection which made the galleys seem to St Vincent 'the true image of hell'.

0.0. (III) p.497 Spes et quaedem futurae voluptatis praeensio idcirco tenet. Animum ad futuram illius fruitionem erectum, seu quasi intentum atque comparatum. Et quia vetus dictum est; Dii laboribus omnium vendunt ideo ipsa efficitur laborum quasi lenimentum, molestias omnes dulcore quodam veluti praegustato condient, animumque ad quid vis necessarium agendum ita comparans, ut ad exsequendum alacer, seu promptus, utroque suaviter. Heinc non modo agricolas ut spes alit sed omnes prorsus homines, qui quidem pene agant, foveat, sustenat, sublevat; cum nihil sit quod non me mercedis, gloriae, cujus rei, e qua volupta demeti possit operetur. Curte quoque pars in Pydixis Pandorae fundo proditum est, iure percrebuit; quarum nihil est magis secundum natura quam ut inter vitae labores animus quidpam cogitetur quo spem bonam concipiet quasi nempe non sit solamem praesentius, quo molestiam omnem delineat; unde et sibi adulator, seque ipsius potius deludit quam ut non spem quidpam affulgat. Compare the debate in verse about hope by Cowley (later Fellow of the Royal Society) and Crashaw (both in Paris at this time).
10 See J. Vachet L’Artisan Chrétien—ou la Vie du Bon Henri 1670. This book presents an image of a spontaneous Catholic workers’ movement, with no mention of the Compagnie. E. Coornaert Les Compagnonages en France 1966 p.208 shows that le bon Henri was secretly acting as the agent of the Compagnie. See also Cabale des Devots, Allier p.196 and pp.217-9 for other examples of rival secret societies infiltrated, then betrayed to the authorities, by agents of the Compagnie.

11 Delamare Traité de la Police (4 vols.1729) preface and 1 pp.531-6 and 464-75 of O.O. (I) pp.719-34. The parlement of Burgundy, which was the first to abolish witch-trials, contained three councillors who were correspondents of Gassendi and foremost in the opposition to it, being sceptical of the existence of witches.

12 O.O. (I) p.1 Natural science and ethics are two branches of wisdom which is tranquility. If all citizens could live in this way the State would be unnecessary (I p.5). It is philosophy which has enabled humanity to live in society, rather than in anarchy.

13 O.O. (II) pp.755-6 De Valois wrote about the golden age even when in the midst of sordid political intrigues and battles, O.O. (VI) p.384.

14 Naudé Judgement du tout ce qui est imprime contre Mazarin 1649 p.92.


16 Sorbière had translated both Sir Thomas More’s Utopia and Hobbes De Cive.

17 Not only were Gassendi and Naudé connected through the Tetrad, but Naudé’s first employer, the President de Mèmes, was a member of the Compagnie; de Mèmes offered a librarianship and a large pension to Gassendi, but was refused.

18 Compare R. Overton Man’s Mortalie Amsterdam, 1643. Overton’s science was crude. He believed in astrology, for example.

19 Pintard Libertinage Erudit p.473.

20 Gassendi himself drew the parallel between idea and semina.

21 O.O. (VI) pp.222, 225a, 228, 236b.

22 O.O. (VI) p.222a A. Blunt Nicholas Poussin 1967 pp.170, 398 for the role of images of cannibalism in popular revolt, see Ladurie Carnival at Romans 1980.


FRIENDSHIP AND THE SECRET SOCIETIES

'To the bird, a nest; to the spider, a web; to man, friendship.'

W. Blake

'Whoever knows the history of science and philosophy during the last two or three centuries cannot but admit that there seems to have existed a sort of secret and tacit compact among the learned not to pass beyond a certain limit in speculation upon their discoveries. The privilege of free thought, so highly extolled in theory, never crosses the limit in practice. There are a few men of genius in the learned class who range beyond it—but much of their genius lies precisely in their avoiding all appearances of ever doing so.'

F. Schelling Natur-Philosophie 1800

'Amicus Plato, Amicus Aristotle, magis amica veritas.'

Newton, Cambridge Add. 3996 (also current in Gassendi's circle)

'Oserai-je écrire des Mystères D'Eleusine sans être initié?'

Naude Science des États
FRIENDSHIP AND THE SECRET SOCIETIES

Historians of science have given much attention to official bodies, like the Royal Society or the Académie des Sciences founded in the second half of the seventeenth century. But earlier in the century, when Gassendi was active, there appears to have been no organisation of equivalent importance, even though this was the most formative period for modern science. On the other hand, there were persistent rumours about the secret international organisations.

The Rosicrucian manifestos, tales of the invisible college, the illuminati have teased the ingenuity of modern scholars. It is remarkable, for example, that almost nothing is known of the proceedings of the Parisian Academy, presided over by Mersenne and later by his friend Gassendi, with a continuous existence from 1634. Secrecy was inevitably associated with subversion. The Rosicrucians were distinctly anti-Catholic and anti-Spanish. A number of secret societies based on southern Italy, the traditional home of Pythagoreanism 1,000 years earlier, had a Utopian anti-Spanish flavour.

Giambattista della Porta, a friend of the young Peiresc, seems to have been close to the centre of this web. A natural philosopher in his own right, his Academy of the Secrets of Nature, banned by the Spanish government and the Inquisition, was the parent of the more famous Lycean Academy, to which both Galileo and Urban VIII belonged. Della Porta's circle was actively involved in the 1585 conspiracy to stage a revolt against Spain in Naples. He and his brother greeted Peiresc on his visit to Italy in 1601, when he stayed with them in Naples. Shortly before, in 1599, Campanella had staged his abortive Neapolitan uprising. After thirty years in prison, he was released by Urban VIII, who feted him in Rome and connived at his escape from
the clutches of the Inquisition to France. Peiresc was waiting to provide him with friends, money and an introduction to the French court. Once there, Campanella threw himself wholeheartedly into Richelieu's anti-Spanish propaganda machine. As Naudé put it, it would be straining credulity to regard all this as a coincidence.

Gassendi was not alone in seeing science as a branch of higher wisdom which included the whole of human life. Personal ethics and political justice were every bit as much within the philosopher's competence as the causes of gravity or the behaviour of lemmings.

When Gassendi exclaimed: 'Nihil humanum mihi alienum', he was writing as a scientist whose science was closely related to the social programme of sixteenth-century humanism. It is possible to dismiss the rumours of secret scientific societies as hysteria, like the contemporary witch-craze. We might be tempted to smile over Fr. Jarrasse's theory of an anti-Christian society, originating in southern Italy, which the pantheist Vanini brought to France. After Vanini's execution, it spread through secret cells under twelve apostles. On the other hand, we find more or less the same theory in the writings of Fr. Mersenne—a pillar of the French scientific academy. Both Gassendi and Naudé made fun of the idea of the Rosicrucians in their published works. But, as we have seen, both were involved in secret intellectual organisations themselves. Naudé remarked:

'The Rosicrucians, whether they exist or not, cannot have the importance they claim. What sort of secret society is it that advertises in public, like the nymph Galatea, who hid her nakedness in the willows so she could be spotted?'

'0 Truth, daughter of Saturn, if anyone uncovers your nakedness I will slit his throat.'

This suggests that he himself had given some thought to the necessity for total secrecy. The Pythagorean society of the Tetrad, to which Gassendi and Naudé belonged, has passed unnoticed, whereas the Rosicrucians have stimulated a mass of speculative literature.
Historians have rightly been cautious about magnifying the intellectual or political influence exercised by the secret society. For this reason I have preferred to approach the problem through the analysis of the role of friendship in the international scientific community during that crucial period before public institutionalisation set in. This will also indicate the nature of lay patronage of science and the closeness with which the humanist and scientific community meshed. It is no exaggeration to say that the latter evolved directly from the former, shedding its values much more slowly than the term 'revolution' suggests.

In the early modern period, friendship acquired some unique features, which became general in society and so were carried over into the scientific community. These are conspicuous in courts, where the passion of King James I for Robert Carr, Philip II for the Duke of Lerma, or Louis XIII for Cinq Mars, became the subject of national scandal. Among the nobility, friendship acquired a new importance because of the ossification of feudal ties. The looser system of patronage, clientage and alliance between factions which determined French politics from 1560-1660 was geared to friendship rather than chivalry. De Valois' father, consigned to the Bastille for treason by Henri IV, had done nothing more tangible than bind a number of key nobles to himself by written documents promising mutual amitié. Friendship was sufficiently flexible to be the basis of a tie, even where companions were separated by a gap in birth or fortune. Gassendi, son of a shepherd, became the intimate friend of Louis de Valois (grandson of Charles IX):

'You seek virtue everywhere, not solely in princes of the blood ... for it matters nothing to you what garments conceal the heroic mind. Only where divinity is hid within the breast are you inclined to bestow patronage.'
This mix of egalitarian sentiment with an almost Nietzschean elitism is utterly characteristic. It sharply distinguishes the French intellectual from his English contemporary. The important thing to realise is that, as Sorbière advised, 'Friendships are not all on the same footing. There must be a certain subordination.'

De Valois' enemies accused him of governing Provence divisively by 'selecting his friends in every town and furthering the interests of this élite'. This was exactly the same attitude which he showed in relation to his scientific friendships with Gassendi or Mersenne. But evidently these purely political ties would have little to do with 'divinity hid within the breast'. They were functional and utilitarian. This distinction between public and private friendship must be made clear at the outset. Gassendi had about two hundred 'friends'; but it is impossible that all had equal access to his confidence.

Not that even the friendship of 'heroic minds' excluded a utilitarian dimension. According to Sorbière, who played a key role in turning Gassendi's informal academy into the Académie des Sciences, utility was the chief end of all friendships. Friendship had occupied a very special place in antiquity, especially in the philosophies of Aristotle and Epicurus. According to the latter, 'friendship cannot exist where one is continually asking for help, or never asks for help.' Even the Devil was generally credited with looking after his friends. The French surgeon A. Paré described the witch as taking on 'l'amitié du diable'. Harrington parried a question by James I, on the subject of demonology with the reply, 'I had not will to court his [the Devil's] friendship farther.' As Provost of Digne, Gassendi had certain political interests in Provence. Appointments to benefices, elections for local government officials (consuls), or disputes over Church rights and property, were some of the many problems on which he invited De Valois' help.
political capacity, Gassendi was numbered among the governor's personal clientele, complained of by the parlement in 1649. Another good example of the utilitarian aspect of their friendship was the flood of military and political intelligence which Gassendi sent to De Valois from Paris between 1642-8. It must be remembered that the newspaper of the day, the Gazette de France, was State controlled and regarded as unreliable. Although his letters from foreign scholars never touched on military or diplomatic details, the accuracy of Gassendi's information was remarkable, and his sources mysterious.

Marseilles' international trading network is one explanation for the extraordinary network of friendships built up by Peiresc. Apart from his connections in the French administration in Paris and the provinces, he seemed to have correspondents everywhere: from Canada to Tunis and the Levant, from Italy to the Netherlands, north and south, he corresponded with everyone worth knowing. His links with England were considerable. Apart from Du Vair and Gassendi, who were his truly intimate friends, he knew Rubens, Van Dyke, the Barberinis, Cassiano del Pozzo, Camden, Goliath, Grotius, Scaliger, Clusius, etc. He devoted his life to sending and receiving letters in every area of knowledge: botany, heraldry, genealogy, archeology, technology, geology, astronomy, classics, oriental studies, Coptic and Hebrew. It is arguable that he took the Baconian programme for science more seriously than the Royal Society ever did.

One of the features of the friendship, noted by Sorbière, was the celebration and recollection of the dead. This recalls the statutes of the Provencal compagnie de pénitents. And it is interesting that Sorbière's treatise takes the form of a legal document, imitating such statutes. Although Peiresc made no discoveries and published nothing, he continued to be remembered through Gassendi's biography, and was still being privately celebrated by Locke, Evelyn, Boyle and Newton some fifty years after his death.
Trevor-Roper accurately described him as 'the dynamo which powered the intellectual life of the continent.'

Friendship was celebrated by one of Gassendi's earliest English admirers, Sir Thomas Browne, as being more important than marriage; and the relationships of Peiresc with the older Du Vair, and later the young Gassendi, were certainly models of stability. Just as Peiresc made Du Vair's contacts, from his voyages to England and Italy, his spring-board; so Gassendi's scientific and astronomical correspondence was plugged into the network created by Peiresc. Gassendi shifted its centre of gravity towards Scandinavia, the Netherlands, and Germany, rather than the Mediterranean; and emphasised astronomy rather than a universal curiosity. But humanism remained an important element. It was the scholarly humanist who had created the idea of friendship as an epistolary cultus; replacing the master-pupil emphasis of medieval time, whilst at the same time drawing on a medieval humanist tradition. But, at heart, this cult of friendship was profoundly secular. Christian themes were rarely touched on in the correspondence of Du Vair, Peiresc and Gassendi. The unanimity with which the barbarism of the Middle Ages was accepted is quite remarkable. In this perspective friendship took on some of the features of an emotional substitute for religion. Sir Thomas Browne (a secret anti-Trinitarian) was not afraid to link the relationship of two friends with the authentic Trinity.

The disorders of the Reformation, and the wars of religion, which undermined the credibility of religion among thinking persons, reinforced the cult of friendship. Firstly there was the utilitarian necessity of finding friendship in high places. It was necessary to seek insurance, in the event of victory by the opposite side. This explains how Peiresc, who identified with the royalist and politique side in the wars of religion, came to be closely associated, on a
personal basis, with the Guise family which had controlled the ultra-
fanatical Catholic League. Secondly there was a more far-reaching
need for intellectual and emotional security. Du Vair perfectly
captured this mood in the opening to his treatise on constancy,
written during the religious wars:

'One day, during the siege which Paris endured with so many
miseries, I was walking alone in my garden, weeping with
heart and eyes, the ill fortune of my country. And as
passion swells immeasurably when it is petted I began to
accuse the heavens of having reigned with cruel influences,
so that I would willingly have disputed against God himself,
if a secret fear had not set bounds to my grief. As my
spirit was at sea among such thoughts, one of my best friends
arrived: a man whose skill in the humanities extends to the
mathematical sciences.'

Du Vair is often described as a Christian Stoic. This is doubly
misleading. The Christianity, most commentators would agree, was
little more than an epicycle on his paganism. Although Du Vair
became a bishop, he was a tough secular-minded administrator who
survived the wars of religion by jettisoning most of his spiritual
baggage. This passage, with its reference to the private security
of a garden and to friendship, shows his Stoicism owed much to
Epicurus. In the same way, Gassendi's Epicureanism owed much to the
influence of Du Vair's Stoicism. The idea of making Epicurus
respectable by Christianising it, almost certainly came to Gassendi
through Peiresc from the example of Du Vair. The extent to which
the two creeds intertwined in the seventeenth century, edging out the
need for a Christian ethic, except as a convenient facade, has been
little understood. The artist Poussin, who knew both Du Vair and
Gassendi, is another excellent example of an Epicurean who drew on
Stoic themes, to place Christianity in a pagan setting.

Religious uncertainties and political disasters drove Du Vair
to seek consolation in humanities, mathematics and friendship. We
find exactly the same background to the dialogues held by Gassendi's
Tetrad in the 1630s or among English exiles in Paris in the 1650s.
which Walter Charlton—Gassendi's English translator—published. The common theme of all these debates is scepticism, tempered by secular mysticism. Du Vair's central message was that the whole universe, public and private, was in continual flux. The individual must become a detached spectator (Epicureanism) and endure everything the fates may send (Stoicism). This emphasis on a cosmos in flux and the illusions which it imposed on the senses, contradicted the Epicurean certainty that the senses were the key to truth. It became one of the favourite themes of Gassendi, who revised the Epicurean cosmology which made the atoms absolutely indivisible, monolithic units unaffected by the world of flux. Gassendi's theory of time and the plasticity of matter drew on Stoicism. De Valois' letters to Gassendi, written twenty years after Du Vair's death, cheerfully blurred Christian, Stoic and Epicurean themes:

'Epicurus philosophised best... for what could be more necessary, in this life of flux, mortality and decay to direct our path to attain eternal happiness and steep the soul in the height of voluptuous!'  

The pleasures of retreat into friendship and the country-side from the strain of public affairs were a frequent theme of De Valois' letters to Gassendi. Such letters, he insisted, during their long absences, were not enough. To speak freely, to lay aside the mask which public business continually compelled him to assume, required personal contact. Although De Valois showed indiscretion in his letters; criticising the corruption of the court, excessive taxation, foreign policy in a most imprudent way; the mask could not be wholly set aside in a private letter. De Valois might discuss with Gassendi the relationship of God to time and space, debate the evidence for purgatory, or condemn the bigotry of the Church Fathers towards Epicurus, but the appearance of liberty was itself a contrivance. When De Valois requested Gassendi to send him a Latin
carol for his Christmas feast, Gassendi obliged. But the words of
the carol were in flat contradiction to the relationship of time and
space to their Creator, which Gassendi was at that moment writing into
his formal treatise. Elsewhere in their correspondence De Valois —
who, as an ex-bishop, knew his theology — objected to Gassendi's idea
that space was infinite and uncreated. When he insisted on the old
scholastic concept of time, as measured by the motion of the fixed
stars, Gassendi did not venture to disagree. This reticence is all
the more striking because, in an earlier letter, to Sorbière in
Holland, Gassendi had communicated his new theory of time (essentially
that of Newton) in full.

It would be tempting to conclude that Gassendi was deliberately
concealing the extent of the unorthodoxy of his physics, in order to
deceive his pious patron. Such a course, however, would have been
contrary to precepts one and six in Sorbière's articles of friendship.
The whole point of the idea of the mask (see GASSENDI AND THE CHURCH)
was to present one face to the world, in order to be free to be
honest with intimate friends. This is exactly the reason which De
Valois gives for needing to see Gassendi in person, and for the
inadequacy of mere correspondence. The likelihood is that Gassendi
judged the ideas too complex for his patron's limited understanding.
There is plenty of evidence that Gassendi grossly flattered De Valois:
on his royal ancestry, his prose style and the profundity of his
platitudinous epigrams. But this was the small change of friendship.
De Valois grossly flattered, in his turn: 'I would there were a
plurality of Gassendis, so that both Paris and Provence could enjoy
his activities without emulation. But as there is but one sun, one
moon, so there is one Gassendi, whom I uniquely love.' A
correspondence between two Frenchmen, even conducted in an obscure
Latinity, could not, in the nature of the times, be confidential.

It was the scene of heavy fighting and atrocities during the Fronde. It was here that Gassendi plotted with the mysterious 'hermit' to overthrow Mazarin and revive the Valois' claim to the throne.

After 1651 it became the property of the Duke's son, Louis de Valois, who died in 1653.

A number of other chateaux were at Gassendi's disposition: that of Peiresc at Belgarde, Louis de Valois at Ecrouan, Marie-Madeleine Aiguillon at Reuil and the estate originally offered to Descartes, the Chateau Montmer. As a disciple of the philosopher of the garden it was appropriate that so many fine seventeenth century garden walks were made available to him.

The De Thou/Du Puy library in 1630, as it was when Gassendi first came to study there. This was the core of the future Bibliothéque Nationale. It was the centre, equally, of science and humanism; and a meeting place for free-thinkers.

Gassendi wrote to Du Puy in 1640 suggesting that he test the principle of inertia with a child's ball bounced from the gallery of this library.
De Valois later warned Gassendi that their letters were being scrutinised — presumably by Mazarin's spies.  

Despite the apparent evidence for De Valois' piety — his horror at the popular profanity of processions involving the Holy Sacrament for example — there are hints that behind his facade of traditionalism he was troubled by doubts. He was interested in textual criticism of the Bible and learned Greek and Hebrew to elucidate it. He invited Gassendi to obtain for him an English Great Bible, so that he could compare what it said about the mortality of the soul (he was puzzling over the classic mortalist text in Ecclesiastes) with the Vulgate.  

His letters to Gassendi on the sufferings of the poor in the Fronde, whilst deeply humanitarian, suggest that De Valois had an Epicurean view of God. D.O.M. is totally remote from the world of human tragedy, deaf to the most heartfelt prayer, and powerless to interfere in the 'lottery' of the universe, or change the hearts of humanity. This pessimistic vision is only articulated right at the end of their correspondence. But it is close to what we know of Gassendi's private philosophy, and appears to reflect a new willingness to be explicit about ideas which had secretly shadowed his reflections from the start. Another small but revealing feature is De Valois' insistence on explaining the true meaning of the Holy Trinity through the triangle. With its Pythagorean and Kabbalistic associations, the triangle held a special place in pantheistic light-mysticism, as expounded by Gassendi's friend Fr. Boulliau. As one of the four faces of the tetrahedron, it was linked with Gassendi's Pythagorean society of the Tetrad. Five triangles were carved at the foot of Gassendi's tomb.  

Did the great patron of both Mersenne and Gassendi have doubts? That he was sceptical of the idea of divine intervention is particularly significant, since his evident leaning towards 'signs', and interest in astrology — tendencies rigorously
combated by Gassendi—show that his nature inclined to credulity. One of his favourite remarks, *digitus Dei est*, does not contradict an Epicurean thesis. In the Samaritan tradition, in which Peiresc and Gassendi had a special interest, God was seen pantheistically, as a purely natural force. The phrase 'finger of God' meant 'finger of fire' and was used to illustrate the presence of this force in the developing pattern of human history. For the Pythagoreans the Tetrahedron was the fire atom, the building block of the cosmos.

Another point, which goes well beyond Gassendi's little circle, is the use of pagan Latin phrases to express traditional Christian concepts—thereby avoiding the Vulgate, whose terms had been given a precise doctrinal sense by the fathers and the councils. To call Christ *servator* or Our Lady *Dei-parae* or God D.O.M. was not regarded as a doctrinal deviation. But it certainly made it much easier for Renaissance pagans to reduce Christianity to a mere form of words, to an equality, at least, with other cults. J.B. Morin suspected that the continual use of the phrase D.O.M.—initials which could have a variety of Latin meanings—was a code by which Gassendi and his friends distanced their unknown principle from the God of the Christians. Morin's view is strengthened by the subtle undertones of words like *anthropomite*, *figmentum* (fiction) or *superstition* which readily sprang to the mouths of members of their circle. To sum up the most positive feature of De Valois' theology: he argued strongly, like Gassendi, that only a creator could fully know his own creation. This maxim was employed primarily as a lever against dogmatists, who included the early fathers, the scholastics and Epicurus himself whose dogmatic atomism 'butts like a ram against the cosmos'. But De Valois' God owes something to Epicurean gods as well as to Jehovah. Rest or immobility are his prime characteristics. The first mover was
explicitly rejected. This implied a sort of Deism, with a creator who permanently rested. But it would be unwise to probe into how this resting God ever created. It may well be that, like Gassendi, he was sympathetic to an Aristotelian picture of the eternity of matter.

Such problems help to explain the importance of friendships to these erudite free thinkers. They provided a safety valve for uttering speculations about unbelief, and its relationship to other problems, behind closed doors where they could do no harm. This was the main function of Gassendi's Tetrad: Gassendi (its founder), Naudé, Diodati and La Mothe Le Vayer. Although it never had more than the four members, so far as is known — together with a secretary, Colletet — its influence must be regarded as extending widely through Gassendi's whole circle of friendships. Fr. Mersenne and Hobbes, Peiresc and Gui Patin, were on intimate terms with all four. Some idea of the outrageously blasphemous tone of their debates can be gathered from the dialogues, privately printed with false dates and Greek names, by La Mothe Le Vayer. Like Hobbes De Cive, copies were not intended for circulation; print runs did not exceed double figures. There is reason to suppose that the tone of the real debates must have been freer than that of the Dialogues, which usually end by saving appearances with a credo quia impossibile est. According to Naudé, these debates were a resumption of an existing tradition. He described how the achristian Jean Bodin had been a member of a similar secret society in Venice in the late sixteenth century, which had been open to those of all religions. Three members of the Tetrad were Catholics, but Diodati was an Italian Protestant who had relatives in Marseilles and Switzerland. It is interesting to note the different attitudes of the Tetrad to one another. Naudé's private letters to Diodati express an intensity, a personal passion, which
matched or exceeded that of De Valois for Gassendi. Naudé's letters to Gassendi, on the other hand, show a much more knock-about relationship, in which a common interest in science and scepticism is paramount.47 This survived the vagaries of the Fronde, when Naudé and Gassendi ought to have been at dagger's drawn. Naudé was not merely the librarian, but also the intimate political adviser of Cardinal Mazarin. Gassendi occupied a similar role in relation to De Valois, who was Mazarin's implacable enemy. The famous orgy of free-thought, at Naudé's house in Gentilly, outside Paris, took place at the height of the Fronde, on the day of the barricades. It is curious that Gassendi made no mention of this meeting in his letter to De Valois giving a full account of the riots.48 Or, perhaps, not so curious: it would have been prudent for both Naudé and Gassendi to conceal such intimacy from their respective masters.

The myth that the Tetrad had no connexion with science is criticised in GASSENDI AND ABSOLUTE MONARCHY. It is sufficient to note here that the implications of unbelief for politics and society, as well as the implications of science for belief, were not questions which could be publicly ventilated in seventeenth-century France. The secret society was the only forum for such debate. And friendship, sealed in Gassendi's phrase usque ad aras, 'to the altars themselves', was the bond of confidentiality which guaranteed personal security. With occasional exceptions, like J.B. Morin, it was seldom betrayed.

Here are Sorbière's Articles of Friendship:

1) free speech on all subjects
2) to agree to differ (without detriment to friendship)
3) to further each other's material interest (whilst keeping the friendship secret)
4) each to ignore any ill-report against the other
5) mutual forgiveness of sins
6) total confidence
7) to remember mutual friends, when dead
8) not to break off a friendship, but phase it out quietly

These correspond to the observed behaviour of Gassendi's circle. Even the legal form, or contract, mirrored existing patterns of behaviour. Accusations of *lesse-amitié* for the 'crime' of withholding certain information or neglecting to write, were only semi-jocular. It must be remembered that an overwhelming proportion of Gassendi's contacts were lawyers, or at least had legal training. It was natural for them to view friendships in these terms. As was pointed out earlier, great nobles like De Valois regarded written contracts of friendship, even when of no legal force, as personally binding. One of Gassendi's correspondents, the Dutch humanist Gruter, wrote: 'It is in my nature to keep friends for ever, whatever shifts of time or space may do.'

The line dividing a private friendship, or a series of such related friendships, from an organised secret society undoubtedly existed. But it is very difficult to draw. The companies of penitents, cowled in their anonymous hoods in Venice or Provence, were easily transformed into secular fraternities along the lines suggested by Sorbière. Naudé claimed the idea of an achristian debating society had originated in Venice, where the penitents took the lead in public charities and opposition to the Pope and Jesuits. There is plenty of evidence from the eighteenth century for the involvement of the penitents in masonic societies. Sorbière's inclusion of such quasi-religious articles as (5) and (7) shows how easily the chief penitent function—of praying for souls of dead brothers—could be assimilated into a more humanistic cult. More significant than the penitents, from Gassendi's point of view, were the Knights of Malta. Originally the Order of Hospitallers, they had been founded by
Provencal knights. The downfall of the Templars had made them the wealthiest land-owners in Provence. At Du Vair’s suggestion, the king had put them in charge of the construction of galleys, the arsenals, and the training of suitable naval officers. De Valois had two connexions with the Order. His uncle had been grand prieur and Governor of Provence, where he had been murcoarded during a quarrel between rival orders of pénitents. His father was grand prieur till his death in 1650. Gassendi was a favourite of this old Duke of Angoulême and was a frequent guest at the family chateaux, Grosbois or Écouen, in the 1640s. There is evidence of a tradition of free thought in the Order of Malta at this time. De Valois’ uncle and father were both notorious libertins and the ideas of Gassendi himself were used to gloss the scandals associated with Grand Prieur Chaulieu and his free-thinking fraternity of the Temple, who valued friendship and Nature alone. After 1730, and the official reception of English masonry in France, the Knights were foremost in developing lodges.

The Compagnie du Saint Sacrement was a secret society of a very different flavour. Unlike the Tetrad it spread rapidly throughout the 1630s and 1640s, with cells in every province and an influential branch in Rome. Unlike the companies of pénitents, clergy were not excluded; though members of religious orders were. It focused its energies on charitable works; and the practical achievements were remarkable and well attested. Responsibility for the social and medical welfare of French Canada came into its hands. Within France itself there were hospitals caring for the poor, the vagrants, the insane, the foundlings, the armies recruited to destitution, crime or prostitution by the European wars. There were purely evangelical goals: missions abroad, religious education, recovery of the lapsed, conversion of Huguenots, censorship of bawdy or blasphemous writing,
reform of morals. The last campaign was aimed at all ranks from the court nobility to the galley slaves. It is astonishing to think that this programme was conducted in almost total secrecy. Even when Mazarin was having their organisation hunted down in the 1650s, scarcely anyone knew it existed. Secrecy was a mania with the Compagnie, and since France was a Catholic country it is tempting to ask why. One reason was that the Catholicism of the French government was suspect, particularly because of its willingness to make the French people sacrifice anything for the cause of Protestantism in Europe. Others could not understand why Protestantism was openly tolerated. Those in the circles frequented by De Valois and Gassendi regarded the extreme policy of absolutism and centralisation—which ironically the English were being taught to identify with popery—as contrary to Catholic political thought. The subversive side of the Compagnie became clear during the Fronde. Its suppression by Mazarin, who regarded it as a personal enemy, was politically justifiable.

This pious body adopted exactly the same organisational linch-pin as the libertins—friendship. It was forbidden to mention the name of the organisation in writing, or even in public. The phrase les amis or nos amis sufficed. Secret emissaries from the Parisian directorate—which has still not been fully identified—carried the credentials 'un ami des amis de delà.' These are the terms in which Chapelain, a member of the Compagnie, wrote to Antoine Godeau, Bishop of Vence, director of the Compagnie in Provence, in 1639, about Gassendi. Gassendi was already a close friend of Godeau at this date and, in the same year, dedicated a letter on the physics of vision to Chapelain. There can be no doubt about his membership of this secret organisation, although no certainty about when he joined.

But the evolution of his philosophical outlook from 1640 onwards, as traced in the erasure of pantheism and materialism from his manuscript
writings, implies the influence of the directorate of the Compagnie. So does the fact that the ultimate selection and publishing of his Opera Omnia was financed by Habert de Montmor, a key member of the Parisian directorate and their visitor to the Hospital for galley slaves, established by the Compagnie in Marseilles.63

Was De Valois responsible for recruiting Gassendi into the society? There is evidence that President de Mèmes, a friend of De Valois, had tried to recruit Gassendi in the early 1630s and been repulsed; he had also done his best to win over another member of the Tetrad, Naudé, at about the same time.64 In a letter written in September 1639 De Valois refers to a sodalium (society) which would gain Gassendi votes (presumably in his forthcoming election as agent for the French clergy).65 This letter must refer to the events chronicled in Chapelain's letter of the previous month which describes 'une merveilleuse conversion de volontés' in favour of Gassendi's candidature, effected by Bishop Godeau, then director of the Compagnie in Provence. It is clear from an earlier letter, of 1638, that De Valois had constituted himself the protector of Bishop Godeau, and therefore of the whole society in Provence.66 There is a good deal of other evidence of his close involvement. His confessor, Fr Yvan, whose charitable and missionary work was strongly supported by De Valois, was an important member of the Compagnie. During the Fronde he was continually shuttling between the Parisian directorate and Provence.67 De Valois' wife supported many of the particular causes of the Compagnie; especially the Magdalen hostels for reformed prostitutes and the revival of devotion among the poor. When the parlement tried to close down the Magdalen hostels, she persuaded her husband to use his political influence on the side of the Compagnie; she is mentioned in the secret archives, along with the Duchess d'Aiguillon, as one of those powerful aristocrats on whom the Compagnie
could always rely. De Valois' campaign to free the Holy Sacrament from Bacchanalian processions, mentioned several times in his correspondence (see p.212), acquires a completely new dimension in the light of his relationship with the Compagnie. Respectful devotion to the blessed sacrament was a badge of membership. Not only did the Order take its name from the act of priestly consecration, but its whole philosophy was rooted in the symbol. Just as God was hidden from the senses in bread, so the Compagnie was to be hidden from the world; its secrecy was justified by the example of Christ, deceiving the world under the double forms of His humanity and the consecrated wafer.

But mysticism was never far removed from politics in the Compagnie. The innumerable committee meetings, which the financing and organisation of so many charities required, were an ideal smoke-screen for other activities. The assassination (1648) of a leading Marseilles member, Gueydon, by agents of the parlement, because he supported De Valois' schemes for administrative reform, is further indication of the Compagnie's political goals. Its disproportionate interest in government is shown by the predominance of its members in the lists of those elected to consulships at this time.

There was a further connexion between De Valois and the Compagnie through the knights of Malta. This was most obvious at a political level. His most faithful supporters were the galley officers of Toulon who continued to resist a siege by Mazarin's troops, long after De Valois' arrest and disgrace led him to be abandoned by the rest of Provence. Gassendi was De Valois' representative in Toulon during the siege. Another connexion between the Knights and the Compagnie was the charitable work among the slaves, by and large supported by the galley officers. It is interesting that at this time St Vincent de Paul, a secret member of the Compagnie who drew
much of his finance and all his organisation from this source, was invited to train chaplains for the Knights of Malta, and to conduct missions for their estate workers. Religious orders were not allowed to join the Compagnie. But an exception seems to have been made for the Knights. Some sectors seem to have been confused by this, and it is not clear whether dispensations for individual Knights were required, or whether Malta had a blanket exemption. Whatever the reason, a Provencal Knight, Simiane la Côte, was among the most active organisers of charities for the Compagnie in Provence. His relatives were active in Mersenne's order of Minimes, which—like the Knights—had its largest concentration of members in Provence. In view of De Valois' family connexion with the Order of Malta, it is possible that he may have extended his protection to the Compagnie without actually becoming a member. His cousin Conti on the other hand, who also patronised Gassendi, was both a senior officer of the Temple and a member of the Compagnie. The Temple was the Parisian headquarters of the Knights, which had been passed on to the Hospitallers (later Knights of Malta) after the condemnation of the Knights Templar at the Council of Vienne. Montmor's house, where Gassendi died, was situated opposite the Temple complex.

The importance of these complex relationships for understanding Gassendi's science lies below the surface. We would expect an organisation like the Compagnie to be enthusiastic for imposing the ban on Copernicanism as part of its campaign against improper dress, pagan ceremony, Jewish money-lenders, blasphemy, irreligious literature and so on. But the organisation was amphibian. A curious statute survives ordering that all those who indulged in blasphemy, immoral or irreligious activities must be denounced secretly to the authorities. But members of the Compagnie who
'speak ill of the Pope, despise holy scripture, or deride the clergy', should be admonished in private. The similarity of this dual standard with Sorbière's rules on friendship is striking. As for science we find Montmor passionately involved in the new astronomy and physics, summoning Descartes to Paris and setting up a private academy with Gassendi as its mentor. Under Sorbière's direction, this became the royal Académie des Sciences. Bishop Godeau, far from deploiring Galileo, regarded Copernicanism as conclusively established. He was every bit as enthusiastic as the atheistic Naudé about Gassendi's Epicurean physics. When Gassendi broke off the work, around 1637, Godeau composed a poem urging him to persevere and bring it to publication. It has been mentioned that the Compagnie had a chapter in Rome, to which Poussin, among others belonged. De Noailles, to whom Galileo dedicated his Due Nuove Scienze and who, as French ambassador to Rome, had rendered the condemned man every sort of service and encouragement, was an aristocrat member of the Compagnie. Here was another link with the Tetrads; for the man who actually smuggled out Galileo's manuscript, and ensured its eventual publication, was Diodati.

De Noailles's colleague as ambassador in 1634 was the Cardinal Archbishop of Lyons. In 1633 he had forbidden the Compagnie to operate in his diocese, but from 1645 he became their enthusiastic protector. In the same year Gassendi began his astronomical lectures at the Collège Royal, under the direct patronage of the Archbishop and with the encouragement of members of the Compagnie like the Prince of Conti. It was from this point that Gassendi began to use the argument from design to demonstrate that science did not encourage mockers and infidels. The Archbishop's niece was the Duchess d'Aiguillon, who was the richest landowner in France and one of the principal paymistresses of the Compagnie. Her interest in Gassendi's
philosophy of nature was not untypical of the taste of certain salon ladies, satirised by Molière in his Femmes Savantes. Did she realise the inner duality of Gassendi's philosophy? Christened Marie-Magdalene, the ambivalence of her own sexual reputation, points to a tension between chastity and self-indulgence in her private life, which public penitence and private charitable works could only imperfectly resolve. It may be that Gassendi's Epicureanism worked for her, as it had for Luillier and De Valois. What is important here is to note that, like her friend Montmor, the Duchess illustrates a link between the Compagnie's preoccupation with public devotion and private pursuit of the new philosophy. 82

Although none of the surviving membership lists includes women, noble ladies were indispensable to its practical organisation. It has been noted how masculine, perhaps misogynistic, was the atmosphere of some of these erudite and scientific circles. 83 The intensity of the purely masculine friendships, discussed earlier; and the fact that, apart from priests like Gassendi or Mersenne, so many confirmed bachelors like Peiresc, Boyle or Newton saw themselves as wedded to science, meant that libertinage or experimentation seem essentially masculine experiences. 84 J. J. Bouchard's scheme to destroy the religious faith of his parents' maid, and engage her in a series of sexual 'experiments', may be an isolated episode. But was he so very different from Boyle, who entered as many Italian brothels as he could find, to prove he could emerge a 'virgin'? 85 Gassendi, on the other hand, took seriously Epicurus' view that cohabitation with learned women in the interests of science was a chaste and equal partnership. Elsewhere he argued that women were as capable of benefiting from learning and the new science as men. 86 Bishop Godeau, pursued a Platonic relationship with the novelist Mlle. Scudéry (patronised by De Valois) who argued that 'une belle amitié'
with either sex was far superior to the slavery of the marriage bed. 87

The Compagnie does not seem to have been distinguished to the same degree by the masculine exclusivity alleged against other secret societies.

It will be argued in a later chapter (GASSENDI ON LIFE AND SOULS) that despite its outward dedication to the cause of the Counter-Reformation the 'secret' of the Compagnie—referred to by directors like Godeau as its 'soul' or life-force—related to a reinterpretation of Christianity along the lines of a pantheistic Epicureanism. This would fit in with some members' special interest in science, Epicureanism and Copernicanism, and with the contradiction in Gassendi's own philosophy between Catholic orthodoxy and an undercurrent of sceptical pantheism. Utopianism (see GASSENDI AND ABSOLUTE MONARCHY), naturalism and pantheism are the main reasons given by successive popes from 1738 onwards for their condemnation of masonry. Although there is no reason to doubt the view currently prevailing among historians that masonry was not exported to France from Britain until the 1700s, certain resemblances between masonry and the ideology and organisation to which the cult of friendship gave rise prior to that date are discernible. An internal history of masonry makes the point with characteristic subtlety:

'La génération spontanée ne doit pas être plus admis dans la vie des constitutions qu'en histoire naturelle...Cette mystique maçonnique avait ce considérable avantage de rallier avec les illuminés...les intellectuels et l'aristocratie...Le Catholicisme s'est toujours apparié à la superstition...Dans ces époques qui veulent réfléchir et ne se plus contenter de grossières superstitions, nous voyons la foi tantôt se marier avec le scepticisme, comme chez Pascal, chez Gassendi et même chez Bayle.' 88
It is possible that there may have been an element of continuity, both in philosophy and personnel, between the friendship networks in which Gassendi was involved and the French lodges of the eighteenth century. This would be to say no more than that the Tetrad, which seemed to fade with the death of its members, or the Compagnie, which lingered on in attenuated form after its central organisation was destroyed, prepared the ground for the otherwise inexplicably rapid spread of lodges in the early eighteenth century. One clue to this possibility is the distinction, which has always been argued to exist, between the Utopian, atheistic and political ideology of Grand Orient masonry and the pragmatic utilitarian and social character of British masonry. This distinction would be unlikely to have arisen if the standard view that continental masonry was imported from Britain were true. Gassendi and De Valois wrote of God in an ambivalent way. Sometimes they used language referring to Him as if He were literally the Creator, or Great Architect of the universe. Sometimes they wrote as if God were truly providential, a direct cause of political events. But at other times Gassendi appeared to regard God and Nature as interchangeable, or indifferent terms (see ATOMS AND INDIVISIBLES) So De Valois would casually switch from Providence to Fortuna, as if they were the same. The position of Grand Orient masonry, unlike the more dogmatic insistence on Theism (even biblical Theism) associated with British lodges, is that the existence of a Creator cannot be proved and is a relatively unimportant question, to be referred to the conscience of individual members. Now it is this indifference about the existence of Providence or a Great Architect (as imagined by theologians) which characterised the ambiguous formularies used by Gassendi. It related closely to the role of astronomy in determining Gassendi's vision of our relationship with nature and the way in which human imagination continually
distorted its own importance.\textsuperscript{90}

There is even a certain continuity of personnel, although clearly the obscurity of the Compagnie's membership makes this difficult to explore in detail. One of the key events in turning 1789 from a reform movement into a revolution was the surrender of their feudal privileges by the nobility. This measure was concerted by two of the wealthiest aristocrats in France, the Duc d'Aiguillon and the Duc de Noailles. They were direct descendants of those patrons of Gassendi and Galileo who had been intimately involved with the Compagnie. The Duc d'Aiguillon is known to have been a mason.\textsuperscript{91} This is not the place to re-open the debate about the role of masonry in the French Revolution. But it is interesting that a distinguished nineteenth-century political theorist, Joseph de Maistre, who rejected the idea that the masons had orchestrated the Revolution, was emphatic that the union of science with religious scepticism was its primary cause.\textsuperscript{92} To counter the alliance of science with unbelief and revolution, he called for a new perspective that would discredit the Greek achievement completely and place the origins of modern science squarely in the spirit of Christianity and the Middle Ages. In this new civilisation, foreseen by de Maistre, the rationalism of Bacon and the eighteenth century would become the dark age.\textsuperscript{93} This determination to balance the socially and politically destructive effects of scientific materialism by bolstering what he frankly called 'superstition, the bulwark of Catholic belief', places de Maistre firmly in the tradition of Gassendi.\textsuperscript{94} De Maistre was himself a mason, initiated by the company of pénitents of Chambéry.\textsuperscript{95}

The ideals cherished by Gassendi and De Valois, if not their organisation, may be pushed back at least to the last Valois kings. The French Academies of the sixteenth century, studied by Frances Yates, particularly the cluster of poets and philosophers centred on De Valois'
grandfather, Charles IX, used hermetic and mythological imagery to mask their rather unorthodox ideas. It is arguable that the French scientific Academy of 1634 originated in this purely literary movement — strongly associated with both Lucretius and Florentine Platonism. Their interest in music, at a practical and a symbolic level, was the direct precursor of the work of Marin Mersenne. Mersenne's earliest interest was in the illicit Hebraism and Cabbalism, which was a mark of this circle and which has been misleadingly portrayed as anti-scientific. King Charles IX, who ironically presided over the Saint Bartholomew massacre of Huguenots, was full of schemes for religious toleration and dreamt of a new European order in which dogmatic religion would disappear, so that Protestants, Catholics and Jews could live in harmony. These schemes were given an apocalyptic form in prophecies by the Provencal Nostradamus and by Guillaume Postel, who foresaw that one of Charles' descendants would unite all Christendom under his rule. He would liberate Jerusalem, rebuild the Temple and restore the Jews to the promised land. These prophecies were mentioned by Naudé, who sneered at their absurdity. But De Valois, the last male descendant of Charles IX, attached at least a symbolic value to them. Hence his dismay as a Valois, at the death of his only legitimate heir, in 1644, and his incongruous invocation of the goddess Astrea, in the midst of the ruins of his political hopes in 1651. As Miss Yates has shown, Astrea was the symbol of the descending age of gold which Postel and his school associated with the chosen descendant of Charles IX. (See GASSENDI AND ABSOLUTE MONARCHY)

Gassendi's interest in these matters, which seems unaccountable in view of his thorough-going rationalism, becomes more explicable if we understand these millenial visions to have been symbols of some underground tradition or order. One of Postel's pupils, the poet
Lefebvre de la Boderie, touched on many themes which surfaced later in Gassendi's philosophy, such as the Pythagorean Tetrad and the allegedly Pythagorean character of the French Druid tradition. Boderie combined Epicurean naturalism with Pythagorean mysticism. (See GASSENDI ON LIFE AND SOULS). It is interesting that Gassendi compared the friendship of the poet Ronsard, who hymned the golden age to Charles IX, with that between himself and De Valois. Though Gassendi referred in several letters to certain 'mysteries', in which he and his correspondent had both been 'initiated', it is hard to believe that these refer to any deliberate restaging of the Eleusinian mystery cults of antiquity. The Compagnie prosecuted in the courts what it regarded as survivals of such pagan rites of initiation among contemporary guilds. It would seem that the world of Gassendi was bounded by the mutual discretion of numerous paired friendships, rather than by formal organisation.

But when dealing with a philosopher who argued that we must distrust appearances, it would be simplistic to assume in the interpretation of his philosophy that appearances were everything. Molière, who has been cited as evidence that French masonry predated 1700, wrote two plays which seem to show an inside knowledge of the milieu discussed in this section. Tartuffe, a play about a total hypocrite who feigned fanatical piety to gain possession of his patron's wife, daughter, properties, seems to show a knowledge of the Compagnie du Saint Sacrement which only a member could have possessed. The climax of the play comes when Tartuffe hands over to the king a box of compromising papers, entrusted to his patron by a friend. The patron is arrested for treason. This was the peculiar method by which the Compagnie sought to conceal their administrative records from outsiders (as described in my Introduction). Historians of literature have alleged that this play was a satire against the
Compagnie, who were responsible for trying to ban it. This suggestion falls to the ground for three reasons. The Compagnie, having been virtually suppressed by the date of the play, anyone who lobbied Louis XIV into banning it would risk identification as a member. Secondly, one of the ex-directors of the Compagnie, Gassendi's old patron Montmor, brought Molière's whole company back to his hôtel, for a series of private readings, whilst the ban was in operation. Thirdly, it was the blameless patron—not the wicked Tartuffe—who had employed the Compagnie's time-honoured device of the box 'kept for a friend'. Tartuffe's ultimate crime was not religious hypocrisy but betrayal of his friendship with his patron. Here he sinned against what was an ultimate value for Gassendi, the Tetrad and the Compagnie. This fits one of the few known facts: that Molière's actors had been patronised by the Prince of Conti, a former member of the Compagnie. 101 Behind Tartuffe's feigned Christianity lies a deeper truth; as Gassendi put it, in a neat inversion of Descartes' deceiving deity:

'Insofar as we have it from God, our faith is most firm. But, humanly speaking, what we have through man, however secure it may seem, must always have that degree of uncertainty, which arises from our knowledge that anyone may be a premeditated liar.' 102

In another play, the bourgeois gentilhomme, at the direct request of Louis XIV (who was the pupil of La Mothe Le Vayer), Molière included the burlesque initiation of a French merchant-prince into the noble Turkish order of Mammamouchi. Although this was pure farce, the satire on initiation into some sort of secret order, with pseudo-grades of nobility, seems unmistakable. As with Tartuffe, we have to ask ourselves whether a very small circle of initiates were not meant to see beyond the laughter of the pit. Behind the nonsensical language, some rather familiar images emerge: M. Jourdain is forced to swear to defend Palestine and to assume command of a galley in Turkish service for that purpose. 103 This would seem
The four oarswomen (232a) are identified by the emblems on their shields with the four virtues of Plato: strength, prudence, justice, temperance, were essential for his ideal republic. These four (indicating a square) remain the cardinal virtues of a free-mason. Other masonic symbols in this painting include the figure of Minerva, holding the oriental dagger.
Both pictures form part of a massive series, commissioned from Rubens by his friend Peiresc for Henri IV's widow Marie de Medici.

Peiresc worked as Rubens' political and historical advisor.

Note the symbolism of the helmsman in both pictures (which is also in Cassendi's writings) and the knight of Malta.

Note the 4 oarwomen on the right, the globe with two stars making a right angle, and the dolphin (dauphin).
to be an exact mirror-image of the task of the Knights of Malta— to recapture the Holy Land with their galleys. In the correspondence of Gassendi and De Valois, the idea of France uniting with the Knights and Venice to overthrow the Turks was treated as a very serious alternative to Mazarin's foreign policy. The importance of the galley to Gassendi's physics (see GALLEY EXPERIMENT) will be brought out later. Gassendi also used the image of the galley, in his section on human emotions, to illustrate that our behaviour is determined like a parallelogram of forces by oppositely directed springs. This is a psychology which Molière, again and again, applied in his plays. The galley was a favourite image for the Compagnie. Its directors were 'de bons pilots, qui ne quitteront pas le gouvernail'. The 'secret' was the provision for a long voyage which must be hidden away, if the crew were to survive. 104 The people, to whom the Compagnie ministered were like the slaves who had grown to love their own wretched condition. Gassendi and De Valois frequently used such images in a moral or political sense in their correspondence. Conde, the leader of the Fronde against Mazarin, was the helmsman. France was a ship whose pilot—Mazarin—refused to head back to port, despite atrocious weather.

A specific association of a galley with non-Christian philosophy came from Giordano Bruno. In an uncanny passage, more poetry than metaphysics, he described God as the senile steersman of a cosmos from which the miraculous and the supernatural had departed. 'The helm will no longer command the waves, the sails are too sere to take the wind, the oarsmen, paralytics, no longer check the contrary gales. The cry, "Steer win'ward. To starboard" echoes emptily across the wake.' But Bruno goes on, this metaphor was meaningless, God was not attached to the universe like the helmsman; working metamorphoses from outside the fabric. He was embedded in the ship, as the formative principle
of matter. This was exactly Gassendi's view. The metaphor of ship and cosmos is to be found in the works of Boderie and goes right back to Plato. But a most unexpected comparison of unbelievers to a galley crew comes from the work of Fr Garasse. Writing of the cult of friendship and naturalism surrounding the poet Théophile de Viau, he demanded:

'Let them be sent to crew the galley Reale. They should be fed bread and biscuit (galley fashion) and, since they love scribbling let them have oars for pens, the waves for ink and for paper, the deck timbers.'

This was in 1623. Did Gassendi's choice of the Reale to confound the scholastic physicists, in 1640, reflect a riposte to the sort of sarcasm which had blocked the publication of his Exercitationes on physical problems in the 1620s? Does it reflect Gassendi's personal sympathy with the unbelievers? The Duke de Liancourt was Théophile's main patron, but was converted after Theophile's condemnation. He became one of the founders of the Compagnie. Another of Théophile's friends, Luillier, did not convert but became an intimate friend of Gassendi. Such links between Gassendi's Compagnie and naturalistic scepticism cannot be explained away.

Garasse is a source for the information that the phrase 'the king's heart is in the hand of God' (in Latin) was a code-word, understood among sceptics to mean that the speaker was himself an infidel, and anything he said about religion could be discounted. How curious to find this exact phrase, at the conclusion of the most pious and eloquent defence of the existence of God and the nature of the Trinity which Gassendi ever delivered—his inaugural lecture as professor of mathematics. Especially as his audience was packed with nobles who had been, or were about to be, admitted to the Compagnie.

Friendship was not merely a moral value for Gassendi's circle.
Its universalism lay in its scientific implications, which created the basis for a natural morality. Lucretius claimed that it was only his passionate friendship for his patron, Memmius, which kept him up night after night searching for words. Both Pythagoreans and Epicureans made friendship the end of all philosophy, natural as well as moral. Gassendi was profoundly influenced by the pre-Socratic idea of physics in which philia was the mainspring of all physical combinations. For Aristotle, friendship was the foundation of political order; for Du Vair, it was 'the chain which binds economic prosperity to your cities'. This economic viewpoint has been strikingly confirmed by Braudel, who argues that friendship was the key to not being swindled in the market-place, as well as to the new conventions of stock-broking. Hobbes described a version of gravitation, which he derived from Gassendi, in terms of the 'friendship' of the earth for the sun, and of the earth for the moon. Fr. Boulliau identified friendship with the laws of nature, amicitiae vincula, which constrained her to be always the same. It was impossible for nature to rebel against herself, or break her own continuity. This was very close to that denial of any distinction between natural and violent which marked Gassendi's offensive against scholastic physics. But what place did it leave for the supernatural?

For Gassendi (see ATOMS AND INDIVISIBLES) the combination of particles was determined by likes and dislikes, pre-programmed into matter. Some of his language self-consciously echoed the early Greek philosophers. The internal structure of the atoms (determined by copula, arranged like the points on a dice) form genitalia which determine which partners are chosen to form semina (seeds). He approved Empedocles' notion that love was the mainspring of physical combination. Like Plato, he saw the naturally geometrical structure of the cosmos as a sexual, rather than a mechanical process. Like
Aristotle he saw the love instinct of birds and animals as a sort of geometrical instinct. This point emerges in his astronomical lectures and in La Mothe Le Vayer's manual of statecraft written for Louis XIV. The lurid sexual imagery of Poussin's Bacchanales is entirely in keeping with this aspect of Gassendi's philosophy. Through the principle of pleasure, the anarchy of individual pairings, eventually brings forth the apparently miraculous natural order and the transient bloom of civilised society. Lucretius' Venus, identified with light by Boulliau as an animus mundi, as well as the universal genetrix, was the counterpart to Poussin's Pan. It was socially, as well as iconographically, convenient to relate Pan to Christ, or Venus to Our Lady. In the same way Poussin's celebration of the Christian sacraments, in art, was on another level a code for certain pagan virtues. It may well be because of the importance of friendship both personally and cosmologically in Gassendi's circle, that the Holy Sacrament—venerated by the Compagnie—doubled as a symbol for some purely humanistic ritual celebration of friendship. This is certainly suggested by the arrangements in the Scottish National Gallery which deliberately juxtapose a Poussin orgy with their magnificent series of his seven sacraments. Although Gassendi rejected the physics of both Campanella and Aristotle, he deliberately retained their notion of contraries; hallowed as it was by Pythagorean antiquity. This led to apparent contradictions in his philosophy; an insistence on powers of attraction/repulsion, association/dissociation, which recalled the alchemical and the occult. His retention of the idea of calorific and frigorific atoms, derived from Campanella's meteorological version of the creation myth, appears to conflict with his desire to quantify matter and eliminate essences.
These contradictions, however, make sense in terms of the social, historical and cosmographic significance of the idea of attraction and the concept of an *evolutionibusque consociabiles* in Gassendi's philosophy. As for the wider contradictions; an invisible scientific community of which history has been silent, or a staunchly Catholic organisation with a sceptical leadership, it would be pointless to pretend they can be solved so easily.\textsuperscript{115} Are we dealing with a collection of friendships, linked by an affinity of intellectual outlook—that of the gentleman/humanist/sceptic—or are we face to face with an organised secret society with long-term political and intellectual goals? Libraries of nonsense have been consecrated to the 'unmasking' of such societies, particularly by French writers, and no serious scholar would wish to be accused of piling another stone upon this ancient folly. Yet if we stick rigorously to the first hypothesis, the collection of friendships, with mutual self-help to ballast purely intellectual affinity, our explanation remains a torso.

In this situation, perhaps our best guide is to fall back on the judgement of Gassendi himself—who lived in an age when secret societies, whether Rosicrucians or witches, were taken more seriously than is the case today. At exactly the same time that he was writing to Fludd (denouncing the Rosicrucians as 'rabid dogs') Gassendi wrote: 'Unless I am hallucinating there was a conspiracy among the greater part of the ancients, unsuspected to this day by the vulgar.'\textsuperscript{116} A favourite theme of Gassendi's philosophy was that printed sources were an unreliable guide to any philosopher's true opinions, and that writings only stimulated disagreements and controversy about interpretation. The true wisdom, which had preceded Greece, came through an oral tradition from the Druids, Brahmans and Pythagoreans and was not confided to books. Aristotle, Plato and Epicurus—whose
differences, down to our own time, are the subject of the histories of philosophy—were really in agreement, in their secret doctrine, upon fundamentals of science, politics and morality. Whatever the truth of Gassendi's opinion, it was one held by many in his circle. Can it be that they were projecting their own situation onto ancient minds?

Epicurus wrote that 'friendship goes dancing round the world'; and it would be fascinating to trace the real basis of the relations shown on the diagram. Why was Peiresc, who published and discovered nothing, such a celebrated figure? What did Milton and Cardinal Francesco Barberini discuss in their audience? Why did Boyle regard Pope Urban VIII as 'more of a gentleman than his habit might seem to let him wear'? Gassendi's own conclusion of the 'conspiracy' of the ancients was: 'We must be content with a mere shadow which, if we are fortunate, may be a shadow cast by truth.' What did Gassendi mean by a 'conspiracy' to dissent in public but agree in private? He may have meant to point to the survival of a Pythagorean brotherhood, long after its supposed dissolution in the fifth century BC, a theory advanced elsewhere in his writings and which he shared with Kepler. In that case his letter to Golius would seem plainly at variance with his attack on the Rosicrucians. As Naudé wrote, the resemblances between Rosicrucians and Pythagoreans were so great that the former were obviously cribbed from the latter.

The term 'conspirators' is one which both Gassendi and Galileo used in connexion with the principle of gravitation to describe the strange propensity of matter to be aware of the existence of other matter and respond with geometrical precision. It would be absurd to write of the regularity of the planetary motions as a product of an organised conspiracy, into which planets and atoms were formally initiated, with a conscious goal in mind. Gassendi viewed the
agreement of golden minds, whether ancient or modern, as an affinity transcending the written word and distance in time or space. He had a chemical conception of the structure of the soul, and the network of human relationships which was more rationalistic than the alchemical conception of the Rosicrucians. We do not need to take at their face-value the accusations of those who, like Morin and Casaubon, viewed Gassendi as the prime instrument in a sinister cabal among the French aristocracy to replace Christianity with a new Epicurean religion of the élite. But such 'hallucinations', as Gassendi himself might have admitted, though not the whole truth, may prove to be truth's shadow.
1. The most interesting writer in this area was Frances Yates. See her Rosicrucian Enlightenment 1972 and many other works. No one has yet explained Boyle's references to his relations with the Invisible College satisfactorily. R. Maddison Life of...Boyle 1968 pp.67-79. C. Webster 'New Light on the Invisible College' Trans. R.H.S. 1974 24 pp.19-42.

2. H. Brown Scientific Organisations in Seventeenth-Century France 1934 for example, Gassendi, was addressed as a Lincean—as were other members. But there was no formal link between the Paris Academy and the Linceans. F. Yates op cit n.1 ch.4 and 5.

3. R. Villari La Rivolta Antispagnola a Napoli 1967 pp.65-70. banditry, millenarianism, hostility to Counter-Reformation, astrology and mysticism were local traditions.

4. Op cit p.51 Giambattista's brother was involved in the intrigue. Another link with Giambattista's scientific circle was the leader, a pharmacist and brother of Giambattista's Professor. Fr. Garasse linked these rebels with libertinage. Doctrine Curieuse ... p.69 O.O. (V) p.251.

5. O.O. (V) p.318 It is clear that there were strong sympathies between Urban VIII and Campanella. See Walker Spiritual and Demonic Magic 1975, for details of secret astral rituals in the Vatican. Also Naudé's Panecrucius to Urban on Campanella's 'escape', which was tactfully left in MS form till Urban's death in 1644.

6. Spink French Free Thought from Gassendi to Voltaire pp.36-42.

7. Naudé Instruction...des Frères de la Rose Croix 1623 Gassendi Examen Philosophiae Roberti Fluddi 1631 O.O. III pp.262-4 Gassendi does not deny that the Order may exist but suggests that they are 'rabid dogs':
   i) because they turn Christian belief into an empty 'ludibrium' or game, deluding the populace;
   ii) because God delights in diversity and in his providence has made many varieties of Christianity he would not suffer any set of initiates to possess the truth—as is alleged of the Rosy Cross.

8. Naudé op cit n.7 p.80 Epigrammatum 1650 p.54.


10. This problem already existed in the seventeenth century. See the efforts of Pierre Du Puy to give an objective account of the trial of the Templars from original documentation, Traitez de la Condemnation des Templiers 1685.

11. J. H. Elliott Imperial Spain Penguin pp.301-2 D. Matthew James I 1967 p.211. It is a good example of Peiresc's international ties that two of his English correspondents were incriminated in the poisoning (by Lady Carr) of Sir Thomas Overbury in the Tower. The Botanist Lobelius was accused of supplying the poison; and Sir Robert Cotton was put in the Tower because he knew too much.

12. Sully Economies Royales He also regarded himself as the 'blood successor of Henri III; see his own Mémoires 1667 p.11, Henri III always called him 'mon fils' in private (he had no legitimate heir).
13 O.O. (V) p.240.
14 De L'Amitié 1660 p.34.
15 BN MS ff.18977 f.206
17 A. Paré Textes Choisis ed. 1953 p.166 Sir John Harington Nuga Antiquae 1604
18 O.O. (VI) p.259b Gassendi ensures the election of 'meum illum assinem Arnulphum', who was none other than the 'écuyer Arnoux' nominated consul of Draguignan by De Valois in 1646. This caused a riot, because he had been elected by royal mandate, not by the local notables. pp.94-5, 256a. Gassendi used De Valois' influence in controversial local government matters.
19 Lettres de Peiresc ed. T. de Larroque II p.148 Peiresc refused to make his own information service available to Renaudot because of government bias. Gassendi was upset because they published a 'leaked' transcript of the condemnation of Galileo. BN ff.9544 f.32 Du Puys à Peiresc 1634.
20 Chancellor Séguier, trying to revive Peiresc's network in the 1640s, found he was unable to get the books and manuscripts he wanted, because of unreliable merchants.
22 For Du Vair see PROVENCE : MENTALITIES pp.7-9 Browne Religio Medici II.5
23 E. Garin Education de 'l'homme moderne (1400-1600) 1968 p.95 For the importance of friendship to Julian the Apostate, see ed. Loeb p.81 III p.81.
24 'From hence I do conceive how God loves man, what happiness there is in the love of God...two natures in one person [the Incarnation] three persons in one nature [the Trinity], one soul in two bodies [friendship].' It is but a step to Feuerbach's theory that friendship is the reality on which all the dogmas of theologians were modelled.
25 Henry de Lorraine, Duke of Mayenne (killed 1622) had an amor vehemens for Peiresc. His father had been head of the Catholic League. He was active in the aristocratic opposition to the parlements (1614-18). His cousin, the Duke of Guise, was governor of Provence till he fled in 1631. O0 (V) p.290a
26 Traité dela Constance ed. Flack 1915 preface.
27 'Such Christian stoicism thinly disguised pagan ideas...and led directly into deism.' pp.198-9 N.C.M.H. IV Professor G. Mosse.
28 I am grateful to Edgar Wind for clarification of this key matter. Blunt in his Poussin 1967 argued that Gassendi and Poussin were both orthodox Christians and that Poussin was a Stotic, not an Epicurean. This distinguished double-agent failed to realise that he was studying minds much like his own. pp.169, 212-13.
29 The Immortality of the Human Soul 1657 This book shows evidence of Gassendi's influence. An argument defending immortality need have no real relationship to Christian doctrine at all. Charlton was strongly influenced by Gassendi's friend Van Helmont.
30 0.0. (VI) 341a, 342a De Valois to Gassendi, 11 March 1642.

31 0.0. (VI) p.376b 'imaginem sui ita cordi infixit meo ut nunquam deleri possit', he wrote on parting from intendant Champigny, his confidant in Provence, 1647, pp.355a, 390b.

32 0.0. (VI) pp.278, 375-6, 341a.

33 De Valois coined the phrase, which Gassendi later made his own: 'captivans intellectum in obsequiam fidei' P.345b. 0.0. (VI) p.125b Gassendi insisted that here was 'both God and man' not the mask [persona] of either. 'He who created time and eternity, begins here in this little space; who created space without limit.'

34 Whereas De Valois conceded Epicurus an 'infinite imaginary space' Nov. 1642, 0.0. VI p.345a, Gassendi, in a letter to the Socinian Rivet—in Holland—Feb.1645, 0.0. (VI) p.218a, finds imaginary space in Cartesian philosophy a 'subterfuge'. De Valois on time VI 349a; Gassendi to Sorbière on time VI p.178.

35 0.0. (VI) pp.374-5.

36 0.0. (VI) p.389a Their content was still highly critical of the government: 'Everything has been subverted but money reigns securely...the whole of Christendom is threatened with apparent disaster...only God can defend the [French] monarchy from so many impending evils.' Dec. 1651 (Mazarin still in Paris).

37 0.0. (VI) pp.273a, 374a/b p.375b Valois sends an account of orthodox doctrine, for All Souls Day, p.279 Gassendi replied with the purgatory of the Pythagoreans (reincarnation).

38 0.0. (VI) p.389 But there are also touches of cynicism earlier: June 1648 to Gassendi: 'Our galleys are heading for Sicily where I leave it to fortune—or rather to God's providence—to avert their woes...we are likely to see innumerable glorious wrecks.'

39 0.0. (VI) p.359a See GASSENDI AND ABSOLUTE MONARCHY (1)

40 Also standing for the five-pointed star, which figured on Gassendi's shield.

41 J. Macdonald Theology of the Samaritans 1964 p.93 The Samaritans equated God with nature and rejected the anthropomorphic Jehovah image. For evidence that Peiresc and Gassendi were strongly influenced by Samaritan ideas, see Appendix 2 GASSENDI AND JUDAISM.

42 W. Guthrie History of Greek Philosophy I pp.266-7, Timaeus 54-64.

43 De Tribus Impostoribus p.111 God and Providence support Mazarin and France; whereas D.O.M. is badge of Epicurus and Gassendi.

44 0.0. (VI) pp.344-6.

45 0.0. (III) p.104 'solitary and therefore free to search the truth without prying eyes.' Gassendi to Prior Gaultier recalling their country walks together.

46 Pintard Libertinage Erudit pp.128-43, 167-8 and Thèse Complémentaire passim The only letter in which Gassendi names the group openly is 0.0. (VI) p.344a to Neure, written in Nov. 1653 after Naudé's death. In their letters they used code names to refer to each other. Some of these are analysed in Pintard's Thèse Complémentaire p.33.

47 See GASSENDI AND ABSOLUTE MONARCHY
Pintard Libertinage Érudit p.426 Patin's expression that their talk would 'go near the sanctuary' fits Gassendi's oft-repeated remark that friendship was usque ad aras.

De L'Amitié pp.34-5.

Gruner Questiones Naturales 1592 preface


Aguilhon Pénitents et Francs Maçons de l' Ancienne Provence 1968.

Du Puy (n.10) emphasised the immense wealth which came to the Order of Malta from the Templars.

His uncle Henri d'Angoulême was bastard of Henri II (Valois) and of an illegitimate daughter of James IV (See PROVENCE: MENTALITIES section 1). At one time it was suggested that De Valois himself should enter the Order.

D. Buisseret Sully 1968 p.163. It was Du Vair's idea to use the Knights.

Tallement des Reaux was the son of the Valois family banker. In his Historiettes he wrote that the Gazette had reported the old Duke's pious and Christian death in 1651, commenting: 'Fortunately no-one believes what they read in the Gazette.' Both these grand prieurs were famous for their amorous adventures.

Chaulieu and his circle, based on the Temple, were conscious disciples of Gassendi 'cured of the loup garou'.

Tallement des Reaux was the son of the Valois family banker. In his Historiettes he wrote that the Gazette had reported the old Duke's pious and Christian death in 1651, commenting: 'Fortunately no-one believes what they read in the Gazette.' Both these grand prieurs were famous for their amorous adventures.

Chaulieu and his circle, based on the Temple, were conscious disciples of Gassendi 'cured of the loup garou'.

J. M. Roberts op cit n.9 p.37 The Chevalier Ramsey used the Knights in the early 18th century as the core for the Continental organisation of masonry.

See GASSENDI AND ABSOLUTE MONARCHY

Allier La Cabale des Dévots 1902 passim.

Op cit p.345 seq. Mazarin himself seems to have been ignorant of the Compagnie (or at least its political significance) until about 1655. St. Vincent had been dismissed from his influential place in the Conseil de Conscience and as Anne of Austria's Confessor during the Fronde. From 1653-60, amidst a background of renewed political unrest among the provincial nobles, Mazarin became 'obsessed' with hunting down the Compagnie.

Argenson, writing in the late seventeenth century, observed that prudence led the Compagnie to destroy all its records around 1660. These documents, edited by Allier, are all that survive and are a fascinating insight into the Provencal sector.

Chapelain, Lettres ed. Tamizay de Larroque 1 p.451 8 July 1639.

ed. Allier p.183 Monimor and Mersenne visited Provence at the same time. But the correspondence of Gassendi and Valois is silent about the former—typical of the secrecy in which Compagnie business was shrouded. As a friar, Mersenne would not have been eligible for election to the Compagnie.

Rochot Lettres Familiares...p.xxii Lettres de Peiresc IV p.570 "C'est douce que de vivre maitre de soi-même et hors de ces précieuse chaines." 1635.

0.0. (VI) p.338
66 Chapelain... pp. 470, 447 'If any distinguished Provencal opposes you, this prince [De Valois] will protect you.'

67 Brémont Provence Mystique pp. 310-45.

68 Op cit n. 62 pp. 222 and 190. 'De Valois' aid is enlisted against the parlement in getting a mont de piété to provide cheap credit for the poor.

69 op cit n. 62 p. 16 The hiddenness of the human soul was another analogy, p. 224.

70 op cit n. 62 p. 249 In Marseilles there was no listed member who had not also been a consul. Control of consular elections was a special interest of De Valois.

71 The galleys were transferred from Marseilles to Toulon in 1645.

72 Abelly Vie de Saint Vincent pp. 149-221 (Abelly was also a member but does not mention the Compagnie in this book).

73 Knights seem to have collaborated with Compagnie in charitable work whether they were members or not. Op cit n. 72 p. 221.

74 Cabale des Dévots pp. 41, 238 See article 'Ordre de Malte' in Marion Dictionnaire des Institutions des Institutions de la France 1928.

75 Op cit n. 62 p. 189 'atheists and libertins' were to be combated 'secretly' by the Compagnie.

76 Op cit n. 62 p. 27

77 See Dictionary of Scientific Biography art. Montmor. If it had not been for the outbreak of the Fronde, which drove Descartes to Sweden, we might have seen Descartes and Gassendi within the same Academy.

78 See GASSENDI AND ABSOLUTE MONARCHY.

79 See Blunt Poussin p. 351 for Poussin's secret admiration of Galileo; p. 177 for relations with Compagnie. Cabale des Dévots pp. 36-40; preface Two New Sciences Dover ed. 'In order to save it from complete oblivion I chose first to place my work in your lordship's hands, asking no more worthy depository... as the defender of my reputation against adversaries who may attack it... while advancing under your banner.' No historian of science has satisfactorily explained why De Noailles merited this dedication. Was it as ambassador of the Compagnie that he placed Galileo under such a 'weight of obligation'?

80 Drake Galileo pp. 374-5 Drake does not believe that Galileo ever placed his work in the hands of Noailles. Much in these matters is hidden. But, on my hypothesis that Tetrad and Compagnie were overlapping organisations, the problem disappears. Diodati and Noailles worked together.

81 O.O. (IV) p. 2 (see the programme n. 75 above).

82 O.O. (I) preface (unpaginated).

83 Hess Cassend 1939 p. 21.

84 B. Easlea Witch-Hunting and the New Philosophy 1980 p. 245 seq. cites contemporary quotations to support this connection. This is not to deny the inaccuracies and purely political statements elsewhere in the book.
85 Bouchard Confessions 1881. He drank her menstrual blood, sprinkled plants with it etc. to see if theories that it was poison were true.

86 0.0. (V) pp.219-223, see his letters to Fraulein Schurmann, encouraging her to promote women's study of classics and philosophy. Her work The Learned Maid was printed in London in 1659. 0.0.(VI)p.199.

87 Lough Seventeenth Century Background p.240
'le plus sensible plaisir est la choix d'un ami...à qui on puisse confier tous ses secrets...en un mot, un autre soi même.'

88 Papal condemnations of masonry have been frequent: 1738, 1751, 1821, 1836, 1884, 1924. A. Lantoine Histoire de la Maçonnerie Française (limited edition) p.107.

89 For an example of the affinity between Gassendism and the climate of early masonry see: C. Frankovitch Storia della Massoneria in Italia 1974 pp.53, 63, 103. The first lodge, at Florence, was the main centre of Gassendist thought in Italy.

90 See ASTRONOMY pp.475-7


92 The Works of Joseph de Maistre ed. Lively, See especially his St Petersburg Dialogues and his Examen de la Philosophie de Bacon 1825.

93 Op cit pp.283-9. With remarkable prescience, De Maistre anticipated not merely the interpretation, but some of the arguments which have led twentieth-century historians of science and ideas to reverse the eighteenth and nineteenth-century image of science. De Maistre was not entirely isolated. Chateaubriand took a similar line. But both writers admitted that after Bacon's day 'providence permitted irreligion to foster science, and science to foster irreligion.'

94 Op cit p.283


96 Frances Yates French Academies of the Sixteenth Century 1946 The Valois Tapestries 1959
Both Mersenne and Peiresc had read the Venetian Giorgi's Harmonie du Monde.

97 Nau: op cit n.7 p.92 His attack on Postel is inconsistent, since in the same work he praised Lactantius as 'the most eloquent theologian'; and as Miss Yates points out Lactantius' Sybiline millenarianism is one of Postel's main sources.
He also praised Campanella extravagantly pp.78-214 as 'the guide [navigate = helmsman] to all statesmen'. But Campanella's ideas were very similar to Postel's.
0.0. VI 'Redibit ut spero aurem Saturni aevum, Astrae de caelis descendet' Frances Yates Astrae 1975 pp.127-46 p.35 for the importance of Lactantius, Gassendi's most quoted theologian.

98 Postel was a lecturer at the Collège de France (see GASSENDI AND ABSOLUTE MONARCHY section ii n.19)

99 0.0. (VI) p.96a.

100 0.0. (VI) 3a Snell; 8vb 'quod sacratempla mystes...frequens'
Both Snell and Schickard were Protestants. to Schickard, Julian the Apostate was addicted to the Eleusinian mysteries.

footnote contd.
continuation of

100 The passage on the golden bough (see GASSENDI AND THE CHURCH), quoted on his death-bed, was thought by antiquarians to be an allegory of the mysteries. See Gibbon Autobiography p.169

101 Op cit n.60 p.399; op cit n.88 p.104 for Molière and masonry.

102 ut Fides divina, seu quam Deo habemus, firmissima sit...Humana autem seu quae homini habetur, tanetsi interdum sit admodum tuta; cum eo tamen gradu incertitudinis semper est, quo praenovimus esse neminem, qui mentiri si velit, non possit. 0.0. (I) p.118a.


104 Op cit n.62 pp.16, 222, 70; Godeau wrote, in April 1639; 'Ayez le coeur en galère pour assister ces misérables, plus lié par leur péchés que par leur chaînes.'

105 La Bestia Trionfante ed. 1888 pp.23-39 Bruno's influence on Gassendi was never admitted, but is discernible on many points—particularly the concept of matter. On p.141 Bruno prophesied the overthrow of property (meum and tuum) and the return of vegetarianism in the new golden age which 'the law of nature' will eventually bring. (see n.99)

106 La Doctrine Curieuse...1623 pp.69-70.
He used the example of the Spanish Viceroy who decided which of the rebels of 1585 should go to the galleys by organising sports among the prisoners. The highest jumpers went to the galleys. This was how the government should handle its 'high-flyer' intellectuals.

107 'Cor regis in manu est Dei 'adding' neque abbreviata est manu Domini, ut minus deinceps de Sion tueatur ipsum.' For a bizarre interpretation of the significance of Sion in this context, see Holy Blood and the Holy Grail Baignent, Leigh, Lincoln p.179. Despite its paranoia and misinformation, which threaten to bring the whole subject into discredit among thinking people, there are points of intersection between this book and reality.

108 De Rerum Natura I p.140.
109 Pico della Mirandola On the Dignity of Man p.232
111 Latin Works Molesworth Physica I pp.56, 354 Hobbes compares gravity to self-preservation in humans. p.414-5, Hobbes' friendships with Mersenne and Gassendi are discussed (I xxviii) Of Galileo it was written: 'Friendship arose from their similarity in morals and temper, which was great—both being victims of clerical prejudice.'

112 Astronomia Philolaica 1645 preface.

113 0.0. (I) p.280 Atoms can be changed easily into seeds, provided they are: 'tanquam homogeneae et inter se complexionibus, evolutionibusque consociabiles'; i.e.'socially compatible with co-evolution'.

114 0.0. (IV) pp.71-2 La Mothe Le Vayer Politique du Prince 1654 I11 Both La Mothe and Gassendi, in rejecting teleology, re-defined instinct.
One of the main objections to the character of the Compagnie—as I have depicted it—is St Vincent de Paul. How could a person of unquestioned sanctity be associated with such an organisation? Because of the importance of this question and because St Vincent provides such a valuable testimony to Gassendi's private unbelief, I have done some research into the missing period of St Vincent's life.

VINCENT'S CLAIM

i) In July 1605 Vincent was sailing from Marseilles to Languedoc.  

ii) His ship, and two others, were boarded by a Turkish squadron off the coast.  

iii) He worked as a slave in Tunisia for an alchemist.  

iv) He learned to make silver from mercury, and gold from silver.  

v) The Sultan invited them to Constantiople in 1606, but the alchemist died.  

vi) In July 1606 he turned up in Avignon to see the papal legate with the tale that he had rowed across the Mediterranean with his master and mistress, whom he had converted to Christianity.

The devil's advocate, at Vincent's canonisation, mocked this story.

Here are some facts:

i) 'Perhaps owing to the plague in Tunis or our increased expenditure on the fleet, no enemy ships have been observed this year.' BN MS fr.23198 f.528 French galley commander's report for 1605 signed 'Gondi'.  

Fact: ten years later Vincent was private chaplain to Gondi.  

ii) Matters of piracy were normally reported in letters or histories. Gondi's report is confirmed by silence of mainland sources.  

iii) Peirese knew a real ex-slave in Tunisia, who had become a Mohammedan. One of his correspondents, D'Arcos, was writing a Baconian natural history of Tunis and reported a complete lack of curiosity about sciences of all kinds in the region. Giant's bones and talismanic stones were the limits of their interest. This was some twenty years after Vincent left. But there is no mention of any school of alchemy, even in the recent past.  

iv) Vincent's holiness was shown by the fact that he never made use of these alchemical powers, even in the cause of fundraising for the poor. However, this reference to alchemy might explain how he came in contact with Gassendi around 1615. Newton and Boyle seem to have sincerely believed that they could work transmutations: the claim may have been made in good faith. But, if so, it reinforces the link noted between the Compagnie and clandestine science.  

v) The Sultan, supposed to have invited them, was then six years old.  

vi) Vincent's doubts are shown by his efforts to destroy his own declaration. He did destroy copies of it and was trying to recover the original right up to his death.
A number of historians have argued that there is no evidence to support Vincent’s claim. This is the first time that the claim itself has been discredited. There remains the fact of a priest who disappeared from Marseilles in 1605 and who reappeared in Avignon two years later, explaining his absence with an exotic tale. He later became an employee of the one man in a position to know its falsity—Gondi. One of the claims of the Rosicrucians was that they kidnapped and transported people to their philosopher’s city in the East for initiation. Vincent would never talk of his ‘missing years’, after writing that ill-fated letter. But his disciples observed in him signs of some tropical disease.

116 0.0. (VI) p.32b nisi prorsus hallucinor...virorum tantorum conspirationem inter se: to Golius.

117 Morin De Tribus Imposteribus 1654 pp.33, 77, 112
M. Casaubon Credulity and Incredulity in Things Natural 1668 pp.206-23

The real state of Gassendi’s reputation in the seventeenth century—so different from that imagined in the twentieth century—may be gauged from the letter in which Bishop Burnet warned Newton that he was advancing a Gassendist view of the creation. Newton replied that he would certainly never advance anything so destructive of all morality and theology. Correspondence ed. Turnbull, 1960 II pp.323-33.