

Medical Discourse and
Avant-Garde Art in France, 1905-1925.

Volume I

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Abstract.

There is a tendency within art historical discourse to construct the avant-garde of the early twentieth-century as something that abandoned the more conservative doctrines and training associated with the Academy and mainstream artistic training. The relationship between 'art' and 'anatomy' is one that is usually associated with mainstream artistic practice from the Renaissance through to the late nineteenth century, not with the radical avant-gardists who from Manet's time appeared to overturn the standard and accepted modes of representation in favour of more radical, liberated and individual responses to fine art practice. However as this thesis shows, anatomy, surgery and the canon of 'ideal beauty' still played a significant, if not crucial, role in the art practice of the avant-garde. Equally, modern medical innovations, such as X-rays, were combined with interest in older, esoteric and occultist sources in the range of material that informed such avant-garde works. More obvious connections between the avant-garde and medical discourse have been explored by other authors, particularly the link between psychological models and fine art practice and, to a much lesser extent, certain artists' use of X-rays as an iconographic source. However this relationship with medical discourse still remains more of a 'footnote' in most histories of the early twentieth-century avant-garde. This thesis brings together for the first time unique and hitherto unexplored historical evidence and a more detailed analysis of the links between avant-garde art practices and medical discourse in the period 1905-1925.

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Preface : Medical Discourse and Avant-Garde Art in France, 1905-1925

The relationship between medico-scientific discourse and art is one that has been established since antiquity, particularly in terms of pictorial representations of medical practices.^[1] However, its particular dynamism and construction has shifted according to socio-cultural and historical contexts.

Clearly, medical iconography is well established and quite ancient, yet in terms of the modern European world, the impact of medical practice on artistic practice was more profound and far reaching for artists of Renaissance Europe. In the attempt to elevate the mechanical arts to the status of the liberal arts (the sciences) thereby bestowing painters, sculptors and architects with the elitism, status and value that the practitioners of the liberal arts enjoyed, anatomical science became vital to the professional status of such practices.

The well documented use of anatomical science^[2] also indicates how it came to be seen as a necessary and central study in the training of the artist in all academies of art from the sixteenth-century through to the twentieth century. Consequently, the young artists of the nineteenth-century and those who formed the early twentieth-century avant-garde were all presented with this mode of training.

The common appearance in the drawing classes of anatomical demonstration, quite often by eminent physicians and anatomists, led to the expectation of an anatomical basis in academic training as and when required. Duchamp's *Nude Descending the Staircase* (1911 & 1912) for example, has variously been associated with Dr. Paul Richer's illustration of a 'figure descending a staircase' as a starting point.^[3] [Fig. 1]

Richer, an exhibiting sculptor and assistant to the eminent physician and neurologist Jean-Martin Charcot, was also Professor of Anatomy at the Ecole des Beaux-Arts in Paris. Works by Charles Rochet (1869,1886) who promoted anthropometry as a useful aid to artists and was also a Professor at the Beaux-Arts, would also have informed such artists training.

Despite long held scholarly interest in the relationship between art and medicine, the literature concerning the subject has almost exclusively dealt with the pre-twentieth century period.^[4] Literature that does address these issues in the twentieth century has until more recently remained largely concerned with psychoanalysis and psychological aspects of medical discourse.^[5] Such psychological aspects of medical discourse have provided themes for an extensive and ever increasing range of literature.^[6] More recent literature, and an exception to this trend, are works by authors who do venture some way into exploring medical links and manifestations in twentieth-century art practice.^[7] However even works that effect to cover the period such as the recent catalogue and exhibition *L'Ame au Corps: Arts et Sciences 1793-1993* prove to be very sparing and affective in the treatment of twentieth-century material.^[8] Equally, the exhibition and catalogue *Spectacular Bodies: The Art and Science of The Human Body from Leonardo to Now* curated by Martin Kemp and Marina Wallace, focuses, in the main, upon earlier models of the relationship between art and science, anatomy and so on.^[9] The discussion of twentieth century art practices is restricted to those artists associated with postmodernism and the resurgence of interest in 'the body' that has dominated cultural discourse throughout the late 1990s and on into the twenty-first century. Again, the early twentieth-century avant-garde is conspicuous by its

virtual absence. It is perhaps only more recently that art practices have more graphically and consciously engaged once again with medico-scientific constructs. The catalogue essay points out that 'it is only in recent years that medical history has established a rapprochement with cultural theory, and medical museums and libraries have become a resource for artists'.^[10]

However, the empirical data and historical evidence gathered here for this thesis shows that, contrary to the belief that the concern with the body, medico-scientific discourse and anatomy virtually disappeared in modern art of the early twentieth century it was, in fact, very much part of the iconographic source material for those artists and was part of the very cultural fabric of that particular epoch. Indeed it could be argued that whilst the twentieth-century has witnessed a proliferation of the use of the body as locus for key debates that transcend boundaries--political, geographical, cultural, philosophical and historical--it was the early avant-garde's preoccupation with the body, its power as a potent signifier and the wider discourses through which it was articulated (medical, legal, anthropological etc) that provided much of the material and visual vocabulary for subsequent artists' engagement with the topic in visual terms. From concern with the hysterical, diseased, degenerate body in the early twentieth century through to more recent global concerns about A.I.D.S, B.S.E, Genetic modification, In vitro fertilization, cloning, eating disorders, cosmetic surgery and so on, the literal 'body politic' has emerged as a model through which society organises, articulates and disciplines its competing discourses.^[11]

More detailed accounts concerning medical links with early avant-garde works, such as David Lomas' discussion of Picasso's work and the

iconography of deformity and physical anthropology contained within his 1907 painting *Les Femmes d'Alger (O. J. M.)* are limited and tentative in approach.

Lomas only goes some way towards making those connections and the proposition he sets up is not further explicated. In most literature on the period and concerned with the artists in question, the appropriation and self-conscious references to medical discourses in certain works by artists such as Picasso, de Chirico and Duchamp are not even considered let alone discussed. This is frustrating because the formation of an inter-discursive relationship between medical discourse and the avant-garde has far reaching implications for the understanding of 'avant-gardism' and modernism as a whole, particularly as it was understood within the period of this study.

The present research tackles this under-examined area and its implications in two ways. Firstly in an exegesis of the avant-garde's appropriation, identification and association with contemporary scientific endeavours, variously defined. Secondly by an examination of the apparently paradoxical simultaneous preoccupation with early and pre-classical alchemical texts that carry medical implications.^[12] The research investigates these relationships by selective analysis of the works of certain artists. The diverse personalities and works in fact share some common links. Firstly, for the purposes of this study, they are all artists who worked variously in Paris during the period of 1905-1925. Secondly, Guillaume Apollinaire, a central figure in the formation of the self-proclaimed avant-garde, is also the link between such diverse artists and works.^[13] The temporal range of the study covers the pre-First World War period and the years following the war. The seismic shifts and realignments in the art world that were engendered, in part, by the catastrophe and aftermath

of war have an important impact on the understanding of key avant-garde artists and their iconographic sources, motivations and interests in the post war period. The period under examination also covers Apollinaire's career as poet-critic and his numerous artistic relationships with painters and sculptors up to his premature death in 1918, and beyond to his immediate legacy as embraced by certain Dada and Surrealist artists. Stylistically, the period covers Fauvism, Cubism (and its international apogee and purported demise in the 1920s) and Surrealism. Within this, the study circumscribes the debates surrounding the centrality of Cubism and Apollinaire to the ideas and conception of avant-garde art in the first decades of this century.

All too frequently, Apollinaire's central role in the dissemination of themes and interests that informed certain artists and their work has been disavowed in the literature on the period. Exceptions to this are still relatively few,^[14] and the overall tendency is to disregard Apollinaire's role, referencing him in passing as it were, rather than exploring the often explicit links between his interests and the themes included in certain artist's work. Despite interest in the quasi-scientific interests of Apollinaire and the avant-garde and the fact that his name is often quoted in literature on the topic, discussion of sources for certain art works frequently takes place outside the possibility of direct collaboration with Apollinaire.^[15] Apollinaire's literary work forms the basis of most of the literature concerning his appearance as a key figure in the development of the artistic avant-garde of early twentieth-century Paris.^[16] However, Apollinaire's central role in the formation of themes and ideas in the avant-garde works of the period is perhaps indicative of his diverse and far reaching interests.

As the reinvocation of Renaissance ideals, Apollinaire brings a synthesis of interests: hermetic, alchemical, philosophical, scientific and so on, to his literary and artistic interests in a humanistic formulation of themes and ideas. Apollinaire's own library^[17] is indicative of his wide ranging interests and forms the basis of the initial research for this study. Starting with an examination of Apollinaire's role as catalyst for such themes, the discussion will be expanded to include an investigation into the internal logic and conception of a self-conscious avant-garde in relation to the use of medical discourse by certain avant-garde artists.

The particular articulation of medical discourse by such artists in fact challenges certain (mis)conceptions of an avant-garde. Avant-garde art is a problematic conception and attitude of modernism and the literature on the subject remains relatively limited. The term itself is problematised by the opposition arising from its various interpretations and could be seen only to become truly meaningful in connection with an examination of the artist's own existential ideological and aesthetic concerns.

Historically, the initial logic and development of the avant-garde was premised on the quasi-scientific notion of art committed to discovery and breaking new ground. The avant-garde was therefore afforded a social function as well as concern with aesthetic and artistic development. Despite the assertion of progressive tendencies, the avant-garde has also variously had recourse to what may be seen as more 'regressive' themes. Such tendencies form the basis of an internal paradox of avant-garde art. Indeed paradox, and plurality of meaning and signification could be said to be one of the key characteristics of the avant-garde in the period under consideration.

Primitive discourse is a case in point, and the attention given to such tendencies has contributed to the elevated importance of the recourse to called 'regressive' themes.^[18] Primitive discourse as an instance of retrogressive themes, was appropriated and subverted by many European avant-garde artists operating in the first decades of the twentieth-century. The appropriation and mobilisation of medical discourse often reveals parallels to this tendency. The avant-garde, deeply rooted in socio-political nuances is conceived as oppositional, subversive, aggressively innovative and ground breaking. The strategy of 'difference' that marks out shifting ground that is the 'modern' is used as a combative strike by the avant-garde. To signify as avant-garde meant, particularly in the first decades of the last century, not only a militant opposition to the recent past and disaffection with contemporary socio-political order, but also a break through to the future.

The guise under which this 'progressive' artistic militancy developed was variously interpreted. For some artists the iconographic formulae for addressing these concerns were based upon the most evident manifestations of the modern, urban and industrialised world: the city, the machine and technological/scientific innovations. In contrast to this, artists such as Picasso, de Chirico and Duchamp, amongst others, affirmed their avant-garde status somewhat paradoxically with an often self conscious reinvocation of the 'past' aesthetic, philosophic and scientific themes and values. More often, the avant-garde artist combined the two interests in a dualistic strategy of subversion. This Renaissance model of the modern, a looking back to look forward, to create the 'new', owes much to the interests and ideas generated by Apollinaire.^[19]

Medical discourse in visual culture is dominantly perceived as the concern of Academic, classical painting, with its roots in the anatomical works of Vesalius, Michelangelo and Leonardo for example. However, the avant-garde's adoption of various aspects of medical discourse can be seen, as with primitive discourse, as a device to not only subvert academicism and classicism, but also to elevate their own work in terms of their own intellectual themes and references in the work, bestowing a type of quasi-dialectic, Hegelian 'grand-narrative' of linear historical 'supremacy' on the works. For artists like Picasso, Duchamp and de Chirico, the appropriation, assimilation and subversion of so-called academic themes was a device that not only sought to reinforce their claims to avant-gardism, but also posited an implicit link to the academic 'masters' of the previous centuries. Medical discourse served to metaphorically link a utopian, classical past and a scientific, aggressively modern future.

The literature dealing with medical discourse and twentieth-century art practice has predominantly only dealt with the psychological aspects of the discourse.^[20] Surrealism particularly (and perhaps understandably) has been circumscribed by discussions of a purely psychological nature. The claims made for Surrealist imagery by historians, and the artists themselves, more often than not posited the idea of such imagery being grounded in purely psychological associations, themes, and objectives. However, the actual images used often had a basis in anatomical, surgical or alchemical iconography. So whilst the overall affect may have been to reinforce certain claims to psychological effects and themes, the iconography utilised had a much more concrete, material nature.

In focusing on the psychological metaphors within Surrealism, the surgical nuances have thereby been overlooked. In the most recent overview of art practice and its relationship with science and medical discourse *Spectacular Bodies*, it was noted that the Surrealist's used images of the 'medical body' more for reference to, and metaphor of unconscious themes. They also acknowledge Surrealist concerns with psychological phenomena such as *hysteria*. Freud's writings on the psychological basis for hysteria were informed by Jean-Martin Charcot, the eminent neurologist with whom Freud studied, briefly, in 1885. However, it was precisely these studies that showed how psychological constructs such as hysteria had material form, literally manifested in the physical, corporeal distortions of Charcot's 'patient' with whom he demonstrated the physical manifestation of this psychological phenomenon. Literature on the subject, such as the essay for *Spectacular Bodies* tends to overlook these connections. At its conception, the theory and study of the mind borrowed strictly surgical/medical metaphors. The 'anatomy' of the mind meant that it could be circumscribed by conventional medico-surgical discourse; dissected, compartmentalised and, in short, treated as an extension of (or model of) corporeality.

Surrealist artists such as Duchamp, de Chirico, Ernst, Masson and Bellmer all employ strategies within their work that seek to destabilise assumptions and expectations, to recreate trauma, to jolt the unconscious, to produce an 'uncanny' (*unheimlich* in Freud's theories) disquiet as well as references to more esoteric, philosophic and hermetic themes. Yet the devices for mobilising such references frequently rely on a discourse of the 'grotesque',

sustained by metaphors of dissection, dismemberment and disfigurement, which have wider medical implications.

David Lomas also begins to address the relationship of medicine and Surrealist art in his article on Frida Kahlo.^[21] He provides an initial and brief discussion of the flourishing of anatomical illustration in the late eighteenth-century and how such anatomical text books of the period continued to be used and informed Kahlo's work.

However, Lomas's discussion is couched in psycho-linguistic terms, drawing heavily on Lacan, Freud and Bahktin. This serves to distort the discussion of the iconography away from the anatomical references and on to their purely symbolic, psychological functions as emblematic metaphors. The medical iconography in Kahlo's work (often culled directly from her own copy of an 1841 anatomical text book) is discussed less in terms of how medical/anatomical discourse functions in her work and more in terms of the personal, psychological aspects that such iconography evidences. Again, the inter-discursive relationship of medicine and art is tentatively presented, but the complexities and in depth discussion of such a dialogic discourse are avoided.

The twentieth-century artist's use of medical discourse is very different in motivation than the previous use by artists of earlier centuries. Within this distinction it should be noted that the evidence of medical discourse in later twentieth-century works, such as those of Kahlo, or even more contemporary, 'postmodern' artists such as Orlan, Mona Hatoum, Beth B and Marc Quinn, served a different purpose than it did for the early twentieth-century avant-garde artists.^[22] Kahlo's use of anatomical themes was based on personal

iconography. Often used emblematically, anatomical organs (for example the heart as the 'bleeding heart' of the Catholic tradition) enabled Kahlo to inscribe graphically the position of self; in this case the Catholic, physically damaged self of Frida Kahlo.

Although psychological aspects are important to the understanding of her personal iconography, the overemphasis on the use made of psychological models for iconographic purposes by certain artists distorts the claims and objectives made for the work. This 'distortion' relates to the selection of material for analysis and has implications for an appropriate methodological approach.

This study aims to combine iconographic and discourse analysis and is therefore sociological in nature. Over the last thirty years methodological approaches to modern art have shifted the focus of attention from the actual products of art practice to the circumstances of production, including reference to iconography and the wider discursive field. Iconography of modernism that relates to certain aspects of medical discourse has mainly centred around psychoanalytic sources. The complexities of establishing other aspects of medical discourse that often informed the avant-garde artists actual practice as well as their socio-cultural positioning, necessarily entails a clearly demarcated methodological structure. This is in the form of a sociological intervention with recourse to discourse theory and analysis with reference to more socio-linguistic models of discourse.^[23]

Foucault's own writing concerning medical discourse provides a post-structural method of critical analysis, examining the constructs of discourse in a wider frame of reference. Foucault's works, such as *Madness*

and Civilisation (1961) are useful not so much for the history of institutions, but for the way in which he deals with the discourse in question. Foucault's cross-cultural contexts reveal the process of discursive formation as one that is not built on a Hegelian quasi-linear historical progression, but one that is produced by knowledge and power, existing across a substrata of inter-discursive contexts and formations.

Discursive interaction and the emergence of object and subject in the act of discursive formation underpins the approach here. Discourse theory can locate the sites of meaning and reveal the value systems that arise within a given discourse. It can therefore offer a broader, more plausible account of how such things as works of art signify. As individuals we are born into the discourses that constitute society as a whole and that form part of an individual's self-identity. Discourse can therefore be seen to be partially a sociological phenomenon. The analysis of discourse, as Janet Wolff notes, is compatible with a 'sociology of knowledge', which 'locates discourses and shows that they are, in their turn, a product of materialism and social practices.'^[24]

The analysis of discourses that constitute art practice at any given time can reveal more convincingly the location of meaning and the dominant meanings of certain signifiers that prevail and why. Structures of 'power-knowledge', to use Foucault's term, can be revealed. Semiotic-structuralism can only ever (in the strictest application) reveal the structural 'parts' (signs) of an artefact or art practice, what the signs and structures signify collectively lies with the reader/consumer as part of discourse and they are never fixed. Any given painting, functioning as 'visual text' is not a closed system of significations, existing in a pure, transcendental

state. As such the discourse of criticism that surrounds it is never, as Foucauldian critical theory points out, 'in unity with its object, never its pure or complete reflection; it is rather a particular articulation of the real, a positivity that cuts, divides, produces'.^[25]

To utilise the notions of discourse can, in effect, open up the text, to reveal the different spaces created for it within the discourses that surround and constitute it. Meaning can therefore be seen to function not only on different levels, but within different discourses *qua* knowledges. A single painting can therefore exist and articulate a range of different discursive constructs. The sign system of the individual work plays out competing interests of differing discourses, the negotiation of that system (via interpretation, analysis and criticism) reveals the interests, partiality, value systems and knowledges of the particular discourse in which the individual functions. Dominant readings/interpretations could be said then to reveal dominant power structures within a discourse.

Discourse analysis can reveal the complex web of interactive relations between concepts, knowledge, beliefs, practices, institutions and socio-economic processes. The task of discourse analysis Foucault sees as:

A task that consists of no longer treating discourses as groups of signs (signifying elements referring to contents or representations) but as practices that systematically form the objects of which they speak. Of course, discourses are composed of signs; but what they do is more than use these signs to designate things. It is this *more* that renders them irreducible to the language (*langue*) and to speech. It is this 'more' that we must reveal and describe.^[26]

The signs within the discourses that surround and constitute the painting do more than signify a set of fixed relations and concepts. What a strict semiotic-structuralist analysis cannot address is the processes of acquisition of

meaning and production of meaning within the broad arena of discourse. Foucault does not consider language a structure, he sees language as *act as event*.^[27] This notion undermines the conception of stable signs within a language, that is having binary opposites and pseudo-fixed meaning. Meaning of a sign is never fixed in any case, since by its very nature the sign is arbitrary. A dominant meaning or reading of a sign becomes the conventional, collectively understood meaning and is often mistakenly thought of as the one fixed meaning of that sign. Dominant meanings are the product of, and part of discourse and can be seen as generated in multiple ways. This arises not only from the sign's arbitrary nature but also from the understanding of meaning being produced at the point of reception of the signs within a 'text' or artefact. Reception presupposes an 'encounter' with the artefact. This is the point at which meaning comes into play, and the meaning construed is inter-dependant on the discursive as well as the artefact's actual textual organisation.

Discourse theory reveals a painting's intertextuality, as a site of competing discourses as well as the semantic network of signification that is engendered by its particular signifiers. It is therefore pertinent to a re-evaluation of the conception of an avant-garde and to the assessment of how medical discourse impacted on such a conception and how it was articulated in the work of key artists.

The dialogic, multiaccentual nature of avant-garde art works, particularly of the early twentieth century necessarily entails a more discursive analysis to locate meaning and establish the nature of the relationship between fine art practice and medical discourse. The self-consciously applied hermetic strategy

of the early avant-gardists was one that included systems of multiple signification, utilising reference, sign and emblem drawn from philosophical, literary and scientific models. The recourse to such initiatives is one that provides a key distinction between the avant-garde *Indépendants* and their academic, salon painter contemporaries.

With this in mind, it could be argued that Bakhtinian theories of discourse (*slovo*) and the interpretation of carnivalesque strategies developed from Rabelaisian ‘pantagruelism’ serve to locate certain avant-garde artists in a discourse of subversion and anarchic antiestablishment activity. Indeed both Patricia Leighton and Jeffrey Weiss have utilised Bakhtinian theories in relation to the avant-garde, and this discursive approach does seem to provide a more productive methodology than more restrictive, formalist and structural approaches.^[28]

The counter discourses of the avant-garde, the alternative and oppositional ‘languages’ are necessarily enmeshed in a symbiotic relationship to the dominant discourse/language which they subvert, satirise and challenge. Bakhtin’s study of Rabelais leads to the analysis of language as political and the Rabelaisian notion that forms of popular culture are particularly resistant to hegemonic discourses of power. Language, for Bakhtin, is inseparable from politics and ideology. So too for many of the avant-garde artists, art was inextricably bound up with political ideology. Ultimately, Bakhtin’s research is concerned with how language is used to resist power.^[29] This conception coupled with the heteroglossia of language can be applied to the visual and codified ‘language’ of such disparate artists as Picasso, Braque, Chagall, De Chirico, Ernst, Duchamp and other self-proclaimed avant-garde artists.

Iconography of medical discourse will also be used. The expediency of iconographic analysis is reinforced by the existence of a wide range of source material. The socio-cultural associations of themes within medical discourse and its interaction with the art and artists of the period will therefore be examined through both empirical, historical evidence as well as theoretical analysis.

The problems attendant on a methodological approach based on iconographic analysis have been raised by Mark Roskill, amongst others.^[30] Roskill rightly raises the concerns of practical application of iconography to such artefacts as photographs, films and specifically Cubist paintings. As Roskill suggests, the iconographic model developed by Panofsky may prove to be troublesome when applied in such instances and make it difficult to

distinguish between superficial appearances in a work of art (particularly with a straight forward or traditional subject) and what might lie behind or beyond them; and between the internal dictates of imagery in a painting and whatever, in the way of motivation and promptings, might be regarded as coming from outside the work itself.^[31]

Establishing a link between medical discourse and the avant-garde necessarily entails an approach grounded in iconography since the avant-garde's appropriation and articulation of the discourse is most evident in their use of medico-scientific iconography in the support of their artistic endeavours. The conventional meaning of the particular iconographic imagery used is dependant on the wider, sociological circumstances. This 'meaning' can be seen to shift for different artists and in the context in which it is articulated. This is the point at which discourse becomes an important and significant factor in the analysis. The selection of iconographic material in the (re)interpretation of the work of art in its social and historical context can

never be exhaustive and is only ever selective. Thus, the process of iconography can, in practice, start to present problems in the assertion of an interaction between the discourses of medical science and the avant-garde. That any given empirical, historical evidence of medical discourse can be addressed in conjunction with or close association to French avant-garde discourse in the period 1905-1925 is not, in itself, evidence of a *self-conscious* appropriation of medical discourse by the artists in question. Rather this is where analysis of wider discursive implications will serve to reinforce any argument initially based on iconographic material.

Criticism of this more sociological approach to art historical writing has been addressed by William Rubin in his response to David Lomas's article 'A Canon of Deformity'.^[32] Rubin questions Lomas's attempt at positing connections with an emergent anthropometric discourse to Picasso's imaging of the *Demoiselles* in his 1907 painting as degenerate, masculinized body types. Rubin's main bone of contention is with Lomas's speculation that Picasso may have consulted Dr Tarnowsky's anthropometric study of Russian prostitutes 'in the course of his researches'. Rubin's final statement asserts that he 'cannot recall any suggestion that Picasso...ever went to a library--medical or otherwise to consult a book'.^[33]

This study proceeds from a demonstrable assumption that Picasso, (and certain other artists under investigation here), did not, in fact, need to consult libraries or books personally, since in the process of the wider dissemination of themes and ideas, his close friend Apollinaire acted as the disseminator and catalyst for such interests. There is also evidence to support the idea that these artists often associated with those from the medical profession and that certain

medical constructs were disseminated via popular culture. In short, there were a wide variety of ways in which medical discourse informed the iconography of many of the works under investigation here that did not require a self-conscious 'researching' of such themes as Rubin suggests.

This highlights the advantages of the more sociological approach, be it an iconographic-cum-discursive analysis or more socio-linguistic models such as those owed to a Bakhtinian or Barthesian legacy.

The retrieval of the sociological reinforces the mechanisms and signifying systems of meaning being inter-dependant on the wider discursive factors as well as the actual artefact's iconographic vocabulary. Despite the notable early contributions of Rosenblum (1973), Ringbom (1970) and Charlat Murray (1967)^[34] the emphasis within art historical writing on formalist, simplistic biographical chronology and psychological models has proven to be remarkably tenacious. Yet it is just such approaches to art-historical material that renders mute the often intrinsic themes, motivations and claims for the works of art themselves.

Formalism particularly is implicated in the overt disavowal of the sociological, political and philosophical motivations and considerations evidenced by certain artists' work. Equally, more recent narrower applications of linguistic/semiotic methodologies, particularly by art theorists such as Rosalind Krauss and Norman Bryson^[35] are testament to the de-politicising, a-historical and reductionist tendency, a legacy of the structuralist period. In a somewhat unproductive and relativist way, Krauss uses semiotics in the service of formalist and biographical teleologies that reinforce certain reductionist assumptions and readings of modernism such as those developed

by Rubin and in the publications of institutions such as the Museum of Modern Art in New York. Patricia Leighton's eloquent critique of such methodological approaches reveals the severe limitations of the modernist paradigms of formalist-biographic analysis and models.

Rubin's reductionism of Cubism to the interaction of two men despite scores of artists and critics who participated

in and theorised its manifestations and his rigid focus on the biographies of Picasso and Braque, with little reference to social or historical issues was thoroughly consonant with the version of modern art that unfolds in the displays of MoMA's permanent collection.^[36]

This stands in stark contrast to the extensive work Leighton and others^[37] have done in relocating Picasso and his works within the context of the wider socio-political issues that are raised by more detailed contextualisation of his work.

Leighton also addresses Krauss's recent adoption of the socio-linguistic model formulated by Bakhtin. Bakhtin's project concerns the sociological nature of language and his emphasis on the political and cultural use of discourse, *qua* speech.^[38] His central theme, as Leighton points out, is how language is used to resist or subvert power. Krauss, however, glosses over the political in Bakhtin's model and in doing so her application leads to a misreading of the avant-garde. The political, subversive nature of a particular conception of the avant-garde is replaced by a formalistic, de-politicised account of avant-garde art. In short, she divorces the aesthetic from other cultural discourses. It is precisely these 'other' discourses; political, social, cultural and so on that inform the works of art in question and contribute to their aesthetic values as much as their iconographic content. Aesthetic and

formal values are therefore intrinsically bound up with wider discursive and socio-historical contexts.^[39] The emphasis in this study on the inter-discursive and the iconographic evidence of such discursive formations in key works is basis enough for the tentative assumption that certain artists were more self-consciously drawing on medical discourse than the application of other, more restrictive and reductionist methods would allow. The application of, firstly, an iconographic approach, establishing certain links between the two discourses and secondly, the application of discourse analysis, allows for the investigation of what is often seen by other methodologies as 'peripheral' material.

The elements of discourse; the popularisation of certain aspects of medical discourse, for instance; caricatures of eminent or infamous physicians or surgeons, the inclusion of certain aspects of medical discourse in popular journals and periodicals of the time, the interaction of doctors, artists and writers and so on, all serve to reinforce certain claims made through the iconographic analysis of the works in question.

The restrictive, 'Greenbergian' type of formalist history of modernism has, since the late 1960's, been under attack, but there appears to be little evidence of a retrieval of so-called 'old' art-historical models, such as those of Panofsky or Meyer Schapiro. Yet the limitations of such reductionist approaches as formalism remain evident in the absences and 'silences' in the narratives of art history. It can be taken that all art history writing is selective, all histories are, as Popper said, interested: yet in the (re)interpretation of the past it should be possible to address areas that have had little or no attention from critics and historians, shifting the focus of attention on to different aspects of

art-historical discourse, thereby bringing new interpretations and apparent motivations to light.

The critical re-evaluation of the white, Western and male narrative of art history has been underway for some time now. This all encompassing project that incorporates revisionist histories, considerations of race, gender and power has yet to move from such general shifts in focus of attention to the particular art-historical material considered worthy of analysis. The methodology to be used in art-historical analysis therefore has a bearing on not only the selection of material to be looked at, but also the actual meanings that are applied to the works and arise from such material. Accordingly research for this study begins with an examination of Apollinaire's own library and takes as a starting point his accumulation of journals, text books and poetry that show evidence of medical or (quasi) scientific concerns.

Notes To Preface.

[1] See for example Ira Rutkow, *Surgery an Illustrated History* (St. Louis & London: Mosby, 1993) ; Carl Zigrosser, *Medicine and The Arts. Ars Medica* (Philadelphia: Philadelphia Museum of Art, 1970) and Ludwig Choulant, *History and Bibliography of Anatomic Illustration*, trans. Mortimer Frank (New York & London: Hafner Publishing Co., 1962) (First published Leipzig, 1852).

[2] Martin Kemp and Marina Wallace, *Spectacular Bodies: The Art and Science of the Human Body From Leonardo to Now*. (Hayward Gallery, 2000); Ludmilla Jordanova, *Sexual Visions. Images of Gender in Science and Medicine between the Eighteenth and Twentieth Centuries* (New York & London: Harvester Wheatsheaf, 1989); Barbara M. Stafford, *Body Criticism. Imaging The Unseen In Enlightenment Art and Medicine* (Massachusetts: MIT Press, 1991); Kathy Adler & Marcia Pointon, *The Body Imaged: The Human Form and Visual Culture Since the Renaissance* (Cambridge: Cambridge University Press, 1993); Deanna Petherbridge, *The Quick and The Dead: Artists and Anatomy* (Hayward Gallery, 1997).

[3] First noted by John Golding, *Marcel Duchamp: The Bride Stripped Bare By Her Batchelors, Even*. (New York, 1973).

[4] See note 2 above. Also see Jonathan Sawday, *The Body Emblazoned. Art and Dissection In Renaissance Culture* (Routledge, 1995); Linda Nochlin, *The Body In Pieces* (Thames and Hudson, 1995); Martin Kemp, *The Science of Art: Optical Themes in Western Art From Brunelleschi to Seurat*, (New Haven and London: Yale University Press, 1990); M. Feher, et al, *Fragments for a History of the Human Body* (New York: Zone, 1989); Sander Gilman, *Difference and Pathology. Stereotypes of Sexuality, Race and Madness*. (Ithaca and London: Cornell University Press, 1985).

[5] Elizabeth Legge, *Max Ernst. The Psychoanalytic Sources* (Ann Arbor, Michigan: UMI Research Press, 1989); Sander Gilman, 'The Mad Man as Artist: Medicine, History and Degenerate Art.' in *Journal of Contemporary History*, vol.20, October (1985); Katia Samaltanos, *Apollinaire, Catalyst for Primitivism, Picabia and Duchamp* (Ann Arbor, Michigan: UMI Research Press, 1984).

[6] Aaron Sheon, 'Caricature and The Physiognomy of The Insane,' *Gazette des Beaux Arts*, No.88, October (1976); Deborah Silverman, *Art Nouveau In Fin-De-Siècle France. Politics, Psychology and Style* (Berkely, Los Angeles: University of California Press, 1989); Hal Foster, *Compulsive Beauty* (Massachusetts: MIT Press, 1993).

[7] Kemp & Wallis, op.cit, part of their publication addresses more contemporary artists; David Lomas, 'A Canon of Deformity: *Les Demoiselles d'Avignon* and Physical Anthropology.' in *Art History*, Vol.16, No.3, Sept. (1993); G. N. Fuller & M. V. Gale, 'Migraine aura as artistic inspiration' in

British Medical Journal, Volume 297, December (1988); Michael Leja, 'Le Vieux Marcheur' and 'Les Deux Risques': Picasso, Prostitution, Venereal Disease and Maternity, 1899-1907.' in *Art History*, Vol.8, No.1 (1985).

[8] Jean Clair, *L'âme au corps: Arts et Sciences 1793-1993* (Paris: Galeries nationales du Grand Palais, Gallimard, 1993).

[9] Kemp & Wallace, op.cit.

[10] D. Petherbridge, quoted in Kemp & Wallace, op.cit. p.150.

[11] The discussion of the medicalisation of society is one that has generated much debate. See for example: Chris Shilling, *The Body and Social Theory* (Sage, 1993); Deborah Lupton, *Medicine as Culture. Illness, Disease and the Body in Western Societies* (Sage, 1994); Susan Sontag, *Illness as Metaphor/Aids and its metaphors* (New York: Anchor, 1991) The variously defined reasons for this phenomenon range from post-modern theories that have remarked upon the increasing concern with the individual subject, to the gradual secularisation of society over the last two centuries, the focus thus being more on material concerns of the individual and corporeal existence than on spiritual concerns and the condition of the soul.

[12] See chapter four and five of this thesis.

[13] For example Linda Dalrymple Henderson, in 'X-rays and the Quest For Invisible Reality in the Art of Kupka, Duchamp and the Cubists' *Art Journal*, Winter (1988), notes Apollinaire's interests in the occultist works of Papus and the connections to the works of Duchamp, Kupka and the Cubists. Such connections and links are explored in chapter four and five of this thesis.

[14] John Golding, *Cubism. A History and an Analysis, 1907- 1914* (Faber and Faber, 1971); George T. Noszlopy 'Apollinaire, Allegorical Imagery and The Visual Arts' in *Forum for Modern Language Studies*, IX, No.1, (1973) ; Samaltanos, op.cit.; Henderson, op.cit.; Adrian Hicken, *Apollinaire, Cubism and Orphism* (Aldershot: Ashgate Publishing, 2002).

[15] Sixten Ringbom, *The Sounding Cosmos. A Study in the Spiritualism of Kandinsky and The Genesis of Abstract Painting* (Åbo: Åbo Akademi, 1970); David Hopkins, *Marcel Duchamp and Max Ernst: The Bride Shared* (Oxford: Clarendon Press, 1989).

[16] See BR; Scott Bates, *Guillaume Apollinaire* (New York: Twayne, 1967); M. Decaudin, *Le Dossier d'alcools* (Geneva: Droz, 1960).

[17] BD I & BD II.

[18] George T. Noszlopy, 'The Embourgeoisement of Avant-Garde Art' *Diogenes*, No.67, Fall (1969); Frascina et al, *Primitivism, Cubism, Abstraction* (New Haven & London: Yale University Press, in ass. with The Open

University, 1993); Anna Middleton, 'Conceptions of Primitivist Discourse In Early Twentieth Century Art: Picasso, avant-gardism and subversive strategies in the articulation of primitivism'. Unpublished M.A. thesis, Bath Spa University College, (1995).

[19] The Renaissance period witnessed a rebirth of interest in the classical world yet also innovation in science and art. It could be argued that these sentiments were taken up by many avant-gardists of the early twentieth century, particularly those working in Paris and in contact with the self-styled Renaissance man, the poet-writer Apollinaire.

[20] Legge, op.cit and Foster, op.cit for example.

[21] D. Lomas, 'Body Languages: Kahlo and medical imagery' in Adler & Pointon, 1993, op.cit, pp.5-19.

[22] Such ideas have been briefly explored in the exhibition catalogue *Spectacular Bodies*, (Kemp & Wallace, op.cit) however my research had reached similar conclusions some four years earlier in a conference paper entitled 'The Body Politic. Medical Discourse, Sexual Subversion and the discourse of Degeneracy in Early Twentieth Century Avant-Garde Art.' for the day conference *Reading and Writing The Contemporary*, University College of Ripon and St. John, York, 21 September, 1996.

[23] See M. Foucault, *The Archaeology of Knowledge* (Routledge, 1990) (orig. 1969); Diane Macdonell, *Theories of Discourse. An Introduction* (Oxford: Blackwell, 1986); Mikhail M. Bakhtin, *The Dialogic Imagination: Four Essays by M.M. Bakhtin*, trans. M. Holquist (Austin, Texas: University of Texas Press, 1981); Alan Sheridan, *Michel Foucault. The Will To Truth*. (Tavistock, 1980).

[24] Janet Wolff, 'Aesthetic Judgement and Sociological Analysis' reprinted in S. Sim, *Art: Context and Value* (The Open University, 1992) pp.117-131 originally from *Aspects*, No. 21 (1982).

[25] D. B. Polan, 'Fables of Transgression-- The Reading of Politics and the Politics of Reading in Foucauldian Discourse,' *Boundary 2*, vol.X, No.3 Spring (1982) p.366.

[26] M. Foucault, *The Archaeology of Knowledge*, (Tavistock, 1972) p.49.

[27] Sheridan,op.cit, p.90.

[28] See Patricia Leighton, 'Cubist Anachronisms: A Historicity, Cryptoformalism and Business-as-usual in New York', *Oxford Art Journal* vol.17, No.2, (1994) and J. Weiss, *The Popular Culture of Modern Art: Picasso, Duchamp and Avant-Gardism* (New Haven & London: Yale University Press, 1994). Weiss, *ibid*, p.109, makes a loose comparison between 'carnavalesque' and the work of Duchamp.

[29] Of course the development of Bakhtin's theories and avant-garde art practice in Paris during 1905-1925 are distinct and separate endeavours and not strictly coeval enterprises. However, it could be said that both were reacting to a particular socio-political milieu, to an epoch of gathering political and social change. For more extensive insight into Picasso's and certain other key avant-garde artists' socio-political motivations see P. Leighton, *Re-Ordering the Universe* (Princeton, New Jersey: Princeton University Press, 1989). Neo-Kantianism, developments in the sciences (physics, psychology, biology and mathematics) all played a part in determining and shaping a new consciousness. Both European avant-garde and Russian socio-linguists could be said to be reacting to similar socio-cultural changes.

[30] Mark Roskill, *The Interpretation of Cubism* (London & Toronto: Associated University Presses Inc., 1985).

[31] *Ibid*, p.176.

[32] Lomas, *op.cit.* William Rubin, 'Correspondance' letter in response to Lomas's article printed with reply from Lomas in *Art History*, vol.17, No.2, June (1994) pp.255-257.

[33] Rubin, *ibid*, p.256.

[34] Robert Rosenblum, 'Picasso and The Typography of Cubism' in R. Penrose and J. Golding (eds) *Picasso: 1881-1973* (Elek, 1973); Ringbom, *op.cit.* and J. Charlat Murray 'Picasso's Use of Newspaper Clippings in his early collages.' Unpublished M.A. Thesis, Columbia University (1967).

[35] R. Krauss, 'The Motivation of the Sign' in W. Rubin & L. Zelevansky (eds) *Picasso and Braque: A Symposium* (New York: Museum of Modern Art, 1992). and Mieke Bal & Norman Bryson, 'Semiotics and Art History', *Art Bulletin*, 73, No.2, June (1991).

[36] Leighton, 1994, *op.cit.*, p.91.

[37] For example Christopher Green, *Cubism and Its enemies: Modern Movements and reaction in French Art, 1916-1928* (New Haven & London: Yale University Press, 1987); Kenneth Silver, *Esprit de Corps: The Art of The Parisian Avant-Garde and the First World War, 1914-1925* (Thames and Hudson, 1989); David Cottington, *Cubism* (Tate Gallery, 1998).

[38] See Bakhtin, *op.cit.*, note 23 above.

[39] Tim Clark has convincingly shown how the very context of production impacted on the aesthetic and formal development of painting in Manet's time. See T. J. Clark, 'Preliminaries to a possible treatment of Olympia in 1865', *Screen*, vol.21, No.1, Spring (1980) pp.18-41. Also see T. Clark, *The*

Painting of Modern Life: Paris in The Art of Manet and His Followers.
(Thames and Hudson, 1985).

Chapter One. Introduction to Medical Discourse and Avant Garde Art in France, 1905-1925.

1.1 Medico-Scientific Discourse and the arts

The examination of medical discourse in early twentieth-century avant-garde art practice presents two distinct, yet interrelated fields of enquiry.

Apollinaire and his contemporaries and collaborators (for example the poets Fernand Fleuret and Blaise Cendrars, the artists Marcel Duchamp and Francis Picabia and so on) in attempting to develop new initiatives from within an essentially post-symbolist milieu rejected historicist attitudes but continued to embrace symbolist fascination for post-medieval, allegorical literature of an alchemical and medical nature, where the body is understood in terms, not so much of surgical exactitude, but more in philosophical terms of the *Theatrum Mundi*. Such interests were being acknowledged by Apollinaire's contemporaries, notably the poet/critic Florian-Parmentier in his *La Littérature et L'Epoque. Histoire de la littérature Française de 1885 à nos jours*. Paris (c. 1914) :

Il y eut de 1900 à 1905 une période d'anarchie complète, durant laquelle la poésie fut la proie des plus extra-vagants faiseurs de rébus et des vulgarisateurs les plus sacrilèges; horrible mêlée d'alchemies et de platitudes... s'accuse de plus en plus rettement. Le sentiment religieux, dissimulé un instant sous, la houppelande du chimistes ou du chirurgien, se manifeste ouvertement au sein de mille sectes littéraires, qui ne sont divisées que par des nuances d'opinion: théosophie, occultisme, spiritualisme protestant, animisme, catholique...[etc] ^[1]

Equally, that they had shown avant-gardist interest in the artistic possibility of continuing analogical links to contemporary science and medicine provided a

fruitful strategy for the production of a decidedly self-conscious twentieth-century poetics.

The introduction of X-rays to medical practice and the developments of surgical methods in general, both reported in the contemporary press, represent an obvious area of interest to writers and artists alike.^[2]

The association of a specific illustrated medical publication with Cubism was being made by 1911, and surgical and medical analogies were soon adopted by Apollinaire in his writings on Picasso's artistic methods.^[3] Indeed as early as 1906 medico-surgical analogies were being drawn in discussion of the graphic work of André Rouveyre.^[4]

Literary and artistic concern with medical and scientific discourse often overlap and the complex stratification leads to a variety of iconographic source material and variously defined ideological, philosophical, political and aesthetic motivations behind the appropriation of such material. A broader distinction also arises between those artists or writers that document an aspect of medical discourse circumscribed by a *realist* convention and those that seek to use a particularity of medical discourse as emblematic, metaphorical, allegorical or as a model for aesthetic/artistic production. Equally the categorisation of the interconnections between the two discourses reveals a complex web of socio-cultural activity.

Firstly there are doctors who also participate in artistic and literary practices, for example Dr Paul Richer was an exhibiting Sculptor as well as working with Jean-Martin Charcot at the Salpêtrière hospital in Paris during the late 1880s and at the Ecole des Beaux-Arts, Dr Chicotot, anatomical demonstrator at the Beaux-Arts and physician, was also an exhibiting painter,

and Dr Grasset and Dr Mardrus, amongst others, produced literary works^[5] .

There are also numerous artists and writers as diverse as Mécislas Golberg, André Breton and Raymond Duchamp-Villon who all had medical training.^[6] Next there are doctors, medical institutions and surgical/medical instruments that appear as subjects in art works. For example Pierre André Brouillet's painting, *Charcot Lecturing on Hysteria at La Salpêtrière* 1887 ; Amedeo Modigliani's portraits of Dr Paul Alexandre; Albert Morand's drawings of the Salpêtrière and Saint Lazare.^[7] Then there are doctors who were also art dealers, patrons or critics, for example Dr Paul Alexandre and Dr René Allendy. Finally there are examples of patients, their illness or disease as subjects. Following Richer and Charcot this was a genre in which Picasso participated, for example *El Loco* (1904) and *La Celestine* (1904) representing madness and congenital syphilis respectively. There are also examples of the aesthetic and metaphorical/allegorical use of medical discourse in the visual and literary arts. Aesthetic theories and their manifestation in painterly/literary production were often revealed as 'pathology', the very process seen as exhibiting illness, disease or madness.^[8]

In fact such categories as those outlined above were being acknowledged by contemporary writers of the period in question. Amongst a similar description of categories in his review of the *Salon d'Automne* of October 1911 a 'Dr Pamphylla' writes

Salon d'automne cette année se trouve plus-beaucoup d'autres, assurément susceptible de retenir l'attention de toutes les médecines en général, et celle des aliénistes en particulier! ^[9]

Such observations follow from the categorisation of the 'degenerate' owed to the work of Lombroso and Nordau amongst others. Apollinaire's interest in

the subject can be demonstrated by his counter attack on the notion of modern art as a pathological illness in his articles concerning 'Art and Medicine' in *Paris Journal* where he responds to similar accusations levied by Dr Artault, who described Cubism as a pathological phenomenon and where he also defends 'art of the insane' and medical art.^[10] The idea of the 'degenerate' and the iconography of such medical categorisations is examined later in this study with specific reference to Picasso's *Les Femmes d'Alger (O. J. Version O)* (1907) and Matisse's *Blue Nude: Souvenir de Biskra* (1907).

The dialogic nature of avant-garde art is established here by the evidence that the internal logic of the avant-garde variously articulates two complementary tendencies and traditions within fine art practice of the period which were hitherto perceived of as diametrically opposed. One the pictorial language of 'official' art, art historical narratives and salon painting etc, the other the language of the militant, forward looking aggressively modern avant-garde 'propre'.^[11] This proposition, of a dialogic avant-garde, is one that overturns more routine conceptions of two distinct art practices in the early twentieth century and is based, in part, upon the evidence of overlapping themes and concerns of a medico-scientific nature for both avant-garde and what I shall call mainstream art practice (conservative, 'naturalistic' painting more often associated with Academic Salon painters). This is the key to the blurring of the historically imposed boundaries between the two practices. The ideological function of medico-scientific iconography and metaphor for the avant-garde in fact reveals the avant-garde's own internal logic as one that often employs competing and even opposing themes of a retrograde, even regressive nature. Medico-scientific iconography is variously used to these

ends. At once evoking modernité , innovation and futurist utopia, but also the re-invocation of Renaissance themes, the cult of hermetic strategy and symbolist language; the poetics of alchemy, anatomy and disease. All fuse in a paradoxical construction, one that epitomises the complexity of the avant-garde as it existed within a specific historical and socio-political milieu. Such an approach leads to a rather more fragmented understanding of the ‘avant-garde’ and more generally of modernism.

The homogenisation of modernism’s history through the writing of curators and critics such as Alfred Barr in the 1930s and later Greenberg and his followers, was one that was based on selectivity, exclusion and a narrative of quasi-linear development that conveniently left out those practices, artists or works that did not ‘fit’ their conception of the development of modern art.^[12] Indeed this notion leads in some instances to an idea that the ‘avant-garde’ were somehow distinguishable from modernism and a separate set of practices. It leads to a fundamental misrepresentation of both ‘avant-garde’ practice and the project of modernism, presenting as it does, the two as distinct strategies and each being conceived of as an homogenous, cohesive and unified practice.

In fact the whole enterprise of art practice in this period is fraught with paradox, contradiction and a fluidity of meaning that belies being pinned down to a single theory of the avant-garde or of modernism.^[13] There are features of so called avant-garde practice that can be said to undermine certain assumptions and theories of the avant-garde, particularly the way in which many artists or works designated as avant-garde in fact subvert notions of easily definable signification. The point being, as Weiss states:

The life of the new art in the public domain shows that the avant-garde was intriguingly ill-defined, and treated by its audience more as a perceived syndrome of novelty and rampant self-promotionalism than a concerted enterprise of originality or advance. As far as we can tell, spectators could not reconcile theoretical discussions of the art with their experience of the art itself. While the tendency is to correct this perception with historical perspective, by extracting intentions or motivations and ideologies in order to define a programmatic notion of the avant-garde, the extent to which this conflict just cannot be resolved is often ignored. If, instead, we restore the tangled mess, or at least describe the devices that best express essential ambiguities of the period, then we can address a quality of early modern esthetic experience- its peculiar *confoundedness* - that seems to have been more broadly shared than any other.^[14]

Echoing Tim Clark's evaluation of the reception of Manet's work in the mid-nineteenth century, Weiss demonstrates the confusion of the new art in the way the signs and codes of the works do not add up, they refuse to signify as Clark had it.^[15] Such works do not signify in the way the audience expects them to, in short they become unintelligible, unreadable or at least 'confound' meaning in any conventional sense. This ambiguity and fluidity of meaning allows for far reaching, innovative, creative and disruptive painterly and iconographic devices. Parody, irony, punning, subterfuge and ambiguous signification were all devices creatively employed by many of the artists under consideration in this thesis.

The fluidity and plurality of meaning in such avant-garde works is something that Apollinaire aspired to. In rejecting the review of his play *Les Mamelles de Tirésias* (1917) by the philosopher Victor Basch, Apollinaire took issue with Basch's narrow definition of his work having immediately identifiable signification. Apollinaire contended that in fact there are 'remarkable works whose symbolism lends itself to numerous interpretations that sometimes contradict one another.'^[16] This seems to encapsulate a particular stance of avant-garde work in this period.

The interaction of the arts and medico-scientific discourse has historically taken various different forms and iconography. However, the late nineteenth-century and more particularly the early twentieth century (with which we are concerned here) reveal certain dominant themes that were explored by artists and writers alike. Anatomy, disease (syphilis, tuberculosis and cancer particularly) and medico-scientific innovation (X-rays being an obvious example) are the themes most readily taken up by artists and writers of the period. Within these categories artists and writers have variously explored the allegorical potential of medico-scientific iconography. This is interesting with regard to the conception (both historical and current) of an avant-garde within the artistic milieu of the period. The distinction between mainstream and avant-garde art practice is commonly portrayed as one of exclusivity, not just on the part of where, and with whom, an artists exhibited, but also within the choice of subject matter and formal technique.

It is during the period under examination (1905-1925) that distinctions of avant-garde art from 'mainstream' art get polarised into debates concerning Realism vs modernism, abstraction vs figuration and so on, debates that are as hotly contested today as they were in the early part of the last century. The invocation of certain classical and arguably more mainstream themes and ideas is a phenomenon that punctuates the history of avant-garde art in this period. Certain authors have acknowledged the apparent paradox of avant-garde interest in themes and subjects of a classical, neo-conservative nature, particularly in the post First World War period.^[17] Equally the blurring of boundaries between high art and popular culture and avant-garde art and mainstream practices is something that has also begun to be explored by

various authors.^[18] It is from an analysis of those participating in salon exhibitions and through choice of subject matter that we find the two artistic camps were in fact more closely associated than is normally conceived. Many of those artists who were later to become ‘avant-gardist’ exhibited at one time or another in mainstream salons such as the *Salon de la Société des Artistes Française*, the *Salon de la Société National des Beaux-Arts* and so on.^[19] Their choice of subject matter was also often quite conservative: landscapes, flower paintings and so on and is another example of the blurring of boundaries that have for so long been used to create an artificial concept of a great divide between avant-garde and mainstream art practices. As early as 1912 Apollinaire commented on the four large annual Salons becoming ‘blurred’ and the *Salon de la Société National des Beaux-Arts* resembled the *Salon d’Automne* ‘like a brother’.^[20] Portraiture, often associated with more conservative practice is something that was continuously used by avant-garde artists in the period. Again it is another example of the often paradoxical integration of the two artistic practices.

However, the key distinction to be drawn between artists whose works exhibit medico-scientific iconography still remains one of painterly techniques and formal concerns. Although the medical portrait (as an example of medical iconography) exists in both more conservative and avant-garde paintings, it is the formal treatment that demarcates the artistic camp.^[21] The subject matter of medico-scientific discourse is one that far from being the preserve of mainstream, academic salon and historical painters was (and is) readily taken up by avant-garde protagonists.

1.2 Future Visions, Innovative Procedures. Medico-scientific discovery and the metaphors of modernity

It is no coincidence that pioneering medical techniques and equipment, the very stuff of science fiction, became a valuable and innovative iconographic source for early twentieth century artists of all kinds. This, of course, was not without precedent. The nineteenth-century *fin-de-siècle* witnessed a renaissance in the medical profession, whose credibility gained in reputation throughout the nineteenth-century with, amongst other considerations, the organisation of doctors into professional bodies. The renewed interest in the scientific and medical professions also provided a productive, artistic cross-fertilisation resulting in a diverse body of medico-scientific literary and artistic works. Literary works by writers such as the Goncourt brothers, Octave Mirbeau, H.G. Wells, Charles Baudelaire, Arthur Rimbaud, André Gide variously engaged with medical or scientific themes. Such works along with Shelley's *Frankenstein* (1816), Stoker's *Dracula* (1897) and Conrad's *Heart of Darkness* (1902) all bear witness to nineteenth-century obsessions with evolutionary discourse, the emergence of *scientia sexualis* and the metaphorical use of colonialism and the construction of the 'Other' as models for the conception of insanity, degeneracy and primitivism.^[22] Such potent themes and their attendant discursive tropes continued to hold fascination for artists and writers of the early twentieth century.

The atavistic fears expressed in many of these works can be read as metaphors of contemporary fears embellished by evolutionary theory and the apprehension of a rapidly evolving machine age. In Europe, the metaphors of the 'other', the 'insane', the 'degenerate', the 'prostitute' or 'primitive' were

the lenses through which difference in gender, race and class were focused.

Nineteenth and twentieth century scientific study by race scientists, anthropologists, psychologists, anatomists and criminologists, provided analogies that located women, prostitutes, criminals and the insane (all seen as 'degenerate') within the physical, sexual and psychological traits of so-called 'inferior races'.^[23] In turn 'inferior races' were conflated with apes; the traits of ignorance, savageness, bestiality and aggressive sexuality were stressed. Such diverse discursive constructs of the 'other' represented all that the white western male was not.

New empirical data and modern scientific theory added weight to the mythological and gendered analogies already present in anthropological, biological and medical literature.^[24] The anthropometric data gathered by scientists such as Broca, Topinard, Verneau, Bertillon and Lombroso created a culture in which it was taken as scientific reality that blacks, women, criminals and the insane were of a 'lower race' than white men and within this, prostitutes were believed to exhibit the signs of pathology and degeneracy that were analogous to apes and lower species.^[25]

The nineteenth-century medico-scientific construction of the 'degenerate', coupled with the fear of two main infectious diseases (tuberculosis and syphilis) provided potent source material and metaphorical reference for artists and writers of the period and beyond in to the early twentieth century. Symbolist and gothic *fin-de-siècle* morbid fascination with death, disease and 'degeneracy' found fruition in the image of the consumptive. Ethereal, spiritual (close to death) the romanticisation of disease (in particular tuberculosis during the late nineteenth century) had parallels to the themes of

Baudelairean *modernité* : the fleeting, ephemeral nature of modern life and the ‘heroisation’ of the poor, the prostitute, the social outcast and so on. Such themes and concerns still held currency for the early twentieth-century avant-garde, although syphilis and cancer somewhat replace tuberculosis as a primary focus of fear for the first decades of that century.

1.3 Gendering of the inter-discursive relationship

*L'art! l'art!...le beau!... sais-tu ce que c'est?...Eh bien,
mon garçon, le beau, c'est un ventre de femme
ouvert, tout sanglant, avec des pinces dedans!*
[26]

This quotation from Octave Mirbeau’s novel *Le jardin des supplices* (1899) stands as a graphic reminder of the importance of the gendered subject within the historical construction of the discourse of art and medical science.

Mirbeau’s central character and narrator is given this assertion from his father, Dr Trépan (*sic*), whose aesthetic and scientific concerns reveal the misogynistic and patriarchal nature of the two discourses within this particular historical milieu.

Such ideological positions are even more overtly articulated within certain key images of the period. Brouillet’s *Charcot Lecturing on Hysteria at La Salpêtrière* (1887), [fig.2] Richer’s photographic documentation of *Female Morphology* whilst at the Salpêtrière (1900) [Fig.3] and Chicotot’s *Les Rayons X. Traitement du Cancer* (1908) [Fig.4] sum up the often implicit, yet pervasive patriarchal coding of ‘woman’ in nineteenth and early twentieth century discourses of art and science.

Just as in painterly terms the ‘ideal beauty’ of Bougereau’s or Cabanal’s *Venus* was an image of woman as generic, as cipher, here the guise of scientific investigation allows for a voyeuristic and gendered (in the masculine) audience to have access to erotic material, whilst eschewing any criticism of licentiousness or lewdness, by promulgating such material as scientific. Thus the ‘distance’ and endorsement of scientific objective investigation legitimises and maintains the voyeur’s guise of respectability and gravitas. Such discursive constructs operate to posit a parallel to the ‘artists as hero’ construction with the idea of ‘scientist /doctor as hero’ within this particular historical milieu.

The images of medico-scientific discourse from the nineteenth century through to early twentieth century all reveal the hackneyed portrayal of woman as an eroticised, accessible object, passive and available (for dissection, investigation, manipulation and scopophilic pleasure), as if she were already the anatomist’s cadaver, laid out and laid bare. Such powerful metaphors exist in tension with the claimed primary purpose of such images; that of scientific discovery or the recording of such discoveries. Yet the unacknowledged reiteration of visual coding of the female gendered subject complies totally with nineteenth century patriarchal socio-cultural prerogatives. This socio-cultural legitimisation of masculine ideological constructions and consumption of the female body remains an integral and often implicit factor in the work of early twentieth century artists.

Such gender considerations also have ramifications in the blurring of boundaries between artistic practices. In the ideological conception of ‘woman’ and in the role of the female body as signifier within fine art

discourse, both academic and non-academic painters process the female body as signifier in much the same way. Significantly, the visual codification of the female nude does not shift dramatically when the subject becomes one located within medico-scientific discourse. In fact, the signification, the coding, could be said to be even more blatant and easily read in these works which tend to be (at least until the early twentieth century) constructed within 'naturalistic', non-abstract painterly parameters.

Two seminal works of the late nineteenth-century, both painted in 1887, Brouillet's, *Une leçon clinique a la Salpêtrière*, picturing Dr Charcot demonstrating the symptoms of 'hysteria' in his female patient, and Henri Gervex's, *Avant l'Opération* [Fig.5] picturing Dr Pean about to operate upon a young woman, carry a theme of medico-scientific discourse and clinical demonstration yet simultaneously cater for the patriarchal tastes and sexual predilections of contemporary nineteenth century bourgeois society. The females in both works are displayed as the embodiment of *Nature Unveiling Herself Before Science*.^[27] [Fig.6] The metaphor is once again rehearsed and 'scientific', medical observation and display becomes a thinly veiled sexual and erotic display and vehicle for male scopophilic consumption.

In the twentieth-century certain artists continued this genre. Dr Georges Chicotot's 1908 painting, *Premiers Essais du traitement du cancer par Rayons X*, [Fig.4.] displays the doctor himself about to treat a young female patient for breast cancer. Again the signification of the work operates on two levels. It can be read as a self-portrait and documentation of a new and innovative treatment for cancer. It is also the reiteration and endorsement of the 'Doctor-hero' valiantly pushing back scientific frontiers in the quest for

medical cures whilst simultaneously representing contemporary patriarchal tastes in paintings of female nudes and early twentieth century conventions of ideal beauty.

The coding of female gender in more avant-garde works of a medico-scientific nature appears, in the first decade of the twentieth century, to conform to nineteenth-century socio-cultural sensibilities, particularly in the work of artists as varied as Picasso, Richard Tennant Cooper and Ivo Saliger. Picasso's images of prostitutes, blind with congenital syphilis, or his *morphomanes* drug addicted females; Cooper and Saliger's Symbolist reveries of female bodies at the mercy of disease, death and misfortune or the image of the female as carrier of disease and corruption all locate the discourses of medicine and art as patriarchal and explicitly gendered within that particular epoch.

The gendered assumptions engendered by the two discourses were being articulated by critics and writers as early as 1846. Charles Baudelaire in his review of the Salon of 1846 unwittingly reveals the gendered assumption that the 'nude' in art, whether represented in 'bed, [...] or in the bath, or in the anatomy theatre' was decidedly female.^[28]

Yet as ever, the complexity and shifting ground of what constitutes the avant-garde throws up certain exceptions. Later works by Duchamp, Picabia and Ribemont-Dessaignes reveal more hermetically coded representations of the female in medico-scientific iconography. For example Picabia's *Fille née sans mère* c.1916-18 [Fig 7] and Ribemont-Dessaignes *Young Woman* c.1919 reveal that the objectification of woman continues, fetishized rather than simply eroticised and pushed further into the realm of the symbolic by the

obliteration of literal, figurative representation. She remains as cipher, signifier of male attitudes, assumptions and obsessions of both a sexual and socio-cultural nature.

Of course female artists were also operating within the Parisian art-world. Yet apart from their general marginalisation, both then in the patriarchal milieu of Parisian society and subsequently in many histories of art, examples of medico-scientific iconography appearing in their work are markedly few. Portraiture remains the main genre utilising medico-scientific iconography for the female artist in this period.^[29] Other female artists, such as Marevna, whilst drawing on stylistic conventions of Cubism and themes prevalent in pre-War Parisian art such as prostitution, do not represent the female in the same way as her male predecessors. The coding of the female body in Marevna's work *Woman and Death or Prostitute and Dead Soldier*, 1917 is sublimated in Cubist aesthetics primarily, not patriarchal prerogatives of visual consumption.^[30] [Fig. 8]

The question of ideological conceptions of gender are an important, yet often implicit, feature of this thesis. The two discourses in question and the historical, empirical data that forms the basis of the enquiry evidences the deeply ingrained socio-cultural assumptions and constructions of patriarchy as they existed within that particular epoch and the discourses in question. To disavow the gendering of these discourses in their particular historical construction is not only to disavow the work of feminists, revisionists and social historians of the past four decades, but also to offer a misrepresentation of the discourses and their historical construction. This in turn would undermine other wider implications and interconnections of the discourses in

question. The cross-fertilization with popular culture and the wider dissemination of medical themes through other discourses, in short the very iconographic sources taken up by the artists themselves- all have bearing upon the construction and self-conception of an avant-garde. Gender implications are an integral, if implicit part of that conception.

The gendered parallels between medicine, science and fine art practice come together in the embodiment of the female and 'femininity'. Both discourses, particularly in the nineteenth and early twentieth century, 'process' the female body in much the same way. This processing, the formation of powerful tropes both visually and through language and ideology, has particular implications for this thesis; not only in the self-conscious posturing of artists as avant-garde, but by extension, in the ideological signification of medico-scientific iconography.

1.4 Popular Culture and the dissemination of medico-scientific themes.

Reinforcement of the gender bias in medico-scientific iconography can also be found in an examination of popular culture of the period. Satirical newspapers and periodicals (*L'Assiette au Beurre*, *Le Frou Frou*, *Gil Blas*, *Le Sourire* etc) reveal the implicit (sometimes explicit) gendering of medical discourse in the irreverent 'blague' and visual puns concerning contemporary debates and issues of a medico-scientific nature.

Popular culture, in the form of illustrations for periodicals, caricatures, plays, poems and puns has proven to be a rich and extensive source for medico-scientific themes and is a common element in all chapters of this thesis, proceeding, as it does, thematically.

The evidence from popular culture can often unwittingly reveal the complexity of critical reception of new aesthetic doctrines by the public. An illustration in *Fantasio*, No.163, 1 Mai, 1913, p.674, [Fig 9] reveals the common association of ‘modern art’ with insanity: at the *Salon des Indépendants* medical intervention is needed to restrain the hysterical and insane outburst from the artists. Equally popular culture is represented in the work of such avant-garde artists as Picasso, Braque, Gris, Duchamp and others. In the case of the Cubist artists, the references are somewhat hermetically coded, but more obvious examples do occur. Juan Gris’s painting *Fantômas, Pipe and Newspaper* (1915) has direct reference to the fictional character *Fantômas*, a popular literary and cinematic creation. For further discussion see chapter three of this thesis.

The development of innovative medical techniques and procedures such as X-ray therapy or use of radium also engendered many humorous cartoons and illustrations in the popular press. Alongside this were serious advertisements for products that used such new technologies. This aspect of medical discourse is dealt with in chapter five of this thesis.

Popular culture also disseminated ideas concerning physiological and theoretical models of degeneracy. Nineteenth century literary publications can be seen as an important source of such medico-cultural ideas that informed many of those artists and writers working in the early twentieth century. Chapter three addresses these issues in connection to the work of Picasso and Matisse specifically.

Notes To Chapter One.

[1] Florian-Parmentier, *La Littérature et l'Époque. Histoire de la littérature Française de 1885 à nos jours* (Paris, no date, c.1914) pp.474 & 528.

[2] The connection of X-rays and modern art has been documented in relation to Francis Picabia, Marcel Duchamp and František Kupka. See W. Bohn, 'Picabia's 'Mechanical Expression' and the demise of the object', in *Art Bulletin*, Vol.LXVII (1985) pp.673-677 ; L. Dalrymple-Henderson, 'Francis Picabia, Radiometers and X-Rays in 1913' in *Art Bulletin*, Vol. LXXI, No.1, March (1989) pp.114-123 ; L. Dalrymple-Henderson, *Duchamp In Context: Science and Technology in The Large Glass and Related Works*. Princeton, New Jersey: Princeton University Press, 1998); J. Andel & D. Kosinski, *Painting the Universe. František Kupka, Pioneer in Abstraction*. Dallas: Dallas Museum of Art, 1997).

[3] J.P. Bouchon & R.Doyen, *Atlas d'Anatomie Topographique* (Paris, 1911) contained anatomical dissections that were compared to the aesthetics of Cubism in the review *Les Marches du Sud-Ouest*. See chapter two of this thesis for more detail. In February 1912 Apollinaire claimed that Picasso studies an object 'Comme un chirurgien dissequer un cadavre', in *Les Soirées de Paris*, 1st Feb. (1912). Doctor Doyen is discussed in chapter two of this thesis.

[4] Robert de Montesquiou, in his preface to André Rouveyre's *La Comédie Française de Rouveyre* (Paris, 1906) said of Rouveyre: 'Notre jeune et résolu tortionnaire m'apparaît encore, dans cet étonnant Album, comme une sorte de Docteur Moreau de la vivisection dramatique' [see pp.9-33]. This work was one of a number of books by André Rouveyre that Apollinaire owned. Indeed, Apollinaire's friendship with Rouveyre and the cross fertilisation of ideas and interest in medico-surgical themes seems to be more than adequately supported by such evidence. The 'Dr Moreau' of whom Montesquiou speaks is almost certainly the vivisectionist Doctor of H. G. Wells' novel, *The Island of Doctor Moreau*, first published in English in 1896 by William Heinemann. See chapter two for further discussion.

[5] Richer and his work is well documented: see A.Callen, *The Spectacular Body. Science, Method and Meaning in the Work of Degas* (New Haven & London: Yale University Press, 1995) and T. Garb, *Bodies of Modernity: Figure and Flesh in Fin-de Siècle France* (Thames and Hudson, 1998). Callen mentions Dr Chicotot in her article, 'The Body and Difference: Anatomy Training at the Ecole des Beaux-Arts in Paris in the Later Nineteenth Century.' *Art History*, vol.20, No.1 March (1997) pp.23-60. Callen only mentions him in a footnote locating him as the anatomical demonstrator who was replaced in 1909 (see note 35 of her article) and there is no mention of his artistic output or his participation in exhibitions such as the Salon de la Société des Artistes Français. Chapter two and five of this thesis discuss Chicotot in more detail. Two paintings of his, both dated 1908, *Les Rayons X* and *Traitement du Cancer* are of particular interest here and will be discussed in chapter five of

this thesis. Dr J.Grasset wrote, amongst more medical texts, *L'Occultisme*. (Montpellier, 1907); Dr J-C.Mardrus wrote, amongst other things, *Le Livre des mille et une nuits* (Paris: Fasquelle, no date) and *La Reine de Saba* (Paris: Charpentier-Fasquelle, 1918), both texts were owned by Apollinaire, see BD I, p.104.

[6] For example, Mécislas Golberg, a Polish Anarchist, trained as a doctor and was a writer and collaborator with Apollinaire, André Salmon, and Alfred Jarry writing for *Le Festin d'Esop*, the review started by Apollinaire and Salmon in 1903. André Breton trained in medicine and during the First World War was an assistant at the neuropsychiatric clinic in Saint-Dizier before being assigned to assist the eminent neurologist Joseph Babinski at La Pitié Hospital in Paris and Raymond Duchamp-Villon began training in medicine and was an intern at the Salpêtrière Hospital in Paris in 1898 but gave up medicine in 1900 to become an artist.

[7] Apollinaire also noted examples of this genre, for example in a review of the *Salon de la Nationale* 1911, he mentions the portrait of Dr Bordas by Henri Bénard (1860-1927).

[8] Witness the reception to 'modern' and abstract art in both the early part of the twentieth century and later by those associated with the Nazi party and other repressive regimes.

[9] See 'La Médecine au Salon d'Automne' in *Le Journal*, 19 Oct. (1911).

[10] See Apollinaire, *Paris Journal*, May 15th, June 22nd, August 1st (1914).

[11] This phenomenon can be seen in works such as Picasso's *Les Femmes d'Alger (O. J.)* (1907), which draws upon more art-historical, 'official' narratives and signification of 'the nude', particularly in the pose of the *demoiselles*, whilst simultaneously subverting its traditional and assumed signification through radical painterly devices and ambiguous and multiple signification of the Africanised *demoiselles*. This is discussed more fully in chapter three of this thesis.

[12] Equally Greenberg's conception of the avant-garde becomes distorted with the notion of aesthetic autonomy and his de-politicisation of the understanding of early avant-garde work is problematic: see C. Greenberg 'Modernist Painting' (1961) first published *Arts Year Book*, No1, New York (1961) extract reprinted in C. Harrison and P. Wood (eds) *Art In Theory 1900-1990. An Anthology of Changing Ideas* (Oxford: Blackwell Publishers, 1992) pp.754-760. Contrast to his earlier writing when a more socio-historical account of modernism and avant-garde art allowed a more politicised reading: see for example, C. Greenberg 'Avant-Garde and Kitsch' first published in *Partisan Review* VI, No.5, New York, Fall (1939) extract reprinted in Harrison & Wood *ibid*, pp.529-541.

[13] See the criticism of Peter Bürger's theory of the avant-garde by Jeffrey

Weiss, *The Popular Culture of Modern Art. Picasso, Duchamp and Avant-Gardism* (New Haven and London: Yale University Press, 1994) p.xvi. See also Pete Bürger's text, *Theory of The Avant-Garde*, trans. Michael Shaw, (Manchester and Minneapolis: Manchester University Press and University of Minnesota Press, 1984) see particularly pp.35-44 and pp.112-114.

[14] Jeffrey Weiss, *ibid.*

[15] Tim Clark in his 'Preliminaries to a possible treatment of 'Olympia' in 1865' first published in *Screen*, vol.21, no.1 Spring (1980) pp18-41, reprinted in extract in F. Frascina & J. Harris,(eds) *Art in Modern Culture. An Anthology of critical Texts* (Phaidon & The Open University, 1992) points out that 'Olympia refuses to signify- to be read according to the established codings for the nude, and take her place in the Imaginary.'(Frascina & Harris *ibid.*, p.118). In an eloquent and detailed argument Clark demonstrates the various signs within the painting and the problem of fixing single, unified meaning to them in the context of the work and its historical context of production. The multiaccentuality of meaning within avant-garde painting was further demonstrated in his text *The Painting of Modern Life: Paris in The Art of Manet and His Followers* (Thames and Hudson, 1985). Clark's understanding of avant-garde art as something that refuses to signify, or confuses signification and refuses to be held in a static or monolithic category is something that informs the approach within this thesis. However it should also be noted that as early as 1969 certain theories of the avant-garde were already under critical review, see for example the critical evaluation of Renato Poggioli's *Theory Of The Avant-Garde* (1968) by George T. Noszlopy. Noszlopy states that 'It is likely, however, that the history and meaning of this term [avant-garde] is more ambiguous when interpreted as an historically determined *concept of art* than when Renato Poggioli interprets the term avant-garde as an historically determined art movement...' George T. Noszlopy, 'The Embourgeoisement of Avant-Garde Art' in *Diogenes*, Fall, (1969) No.67, p.88. Plurality of meaning, multiaccentuality and ambiguous signification are the hallmarks of early avant-garde works. This more post-structuralist approach to the work of the period and the discourses in question seems appropriate given the very nature of the avant-garde in this particular historical construction.

[16]

"M. Victor Basch qui n'a pas compris, ou n'a pas voulu comprendre, qu'il s'agissait de la repopulation, tient à ce que mon ouvrage soit symbolique; libre à lui. Mais il ajoute: 'que la première condition d'un drame symbolique, c'est que le rapport entre le symbole qui est toujours un signe et la chose signifiée soit immédiatement discernable'. Pas toujours cependant et il y a des oeuvres remarquables dont le symbolisme justement prête à de nombreuses interprétations qui parfois se contrient."

From 'Les Mamelles De Tirésias' in *Guillaume Apollinaire: Oeuvres Poétiques*, Marcel Adéma & Michel Décaudin, eds. (Paris: Gallimard, 1956). p.867. The note to p.866, on p.1178 *Ibid.*, reads 'allusion à un article de

Victor Basch dans *Le Pays* du 15 juillet (repris dans *études d'esthétique dramatique*). Celui-ci écrivait : “ La pièce de M. Guillaume Apollinaire est un drame sur-réaliste, c'est-à-dire, pour parler française, un drame symbolique rapport entre le symbole, qui est toujours un signe, et la chose signifiée soit immédiatement discernable. En est-il ainsi des Mamelles de Tirésias? Je crois deviner que c'est une satire contre le féminisme ou plutôt contre les excès du féminisme.’

[17] See for example: B. Buchloh, ‘Figures of Authority, Ciphers of Regression: Notes On The Return Of Representation in European Painting’ in *October*, No.16 Spring (1981) pp.39-68; C. Green, *Cubism and Its Enemies* (New Haven & London: Yale University Press, 1987) particularly chapter 12 ‘Tradition and Progress of Styles’ pp.187-202 ; K. Silver, *Esprit de Corps. The Art of the Parisian Avant-Garde and the First World War. 1914-1925* (Thames and Hudson, 1989); E. Cowling & J. Mundy, *On Classic Ground. Picasso, Léger, de Chirico and the New Classicism 1910-1930* (Tate Gallery, 1990).

[18] See for example J. Weiss, op.cit. and K. Varnedoe & A. Gopnik, *Modern Art and Popular Culture. Readings in High & Low* (New York: The Museum of Modern Art & Harry N.Abrams Inc.1990).

[19] For example Albert Gleizes exhibited at the Salon de la Société des Artistes Français in 1907, (exhibit number 528, *Brouillard de Septembre sur la Sein*, Courbevoie, 1906) and was later, of course, a major figure in Cubism. At the same exhibition Albert Morand exhibited his drawing of the *Prison Saint-Lazare* (exhibit number 879) and there were other entries by this artist and Mme. Mutermilchowa (exhibit nos 920,921 for example and others) Apollinaire had specifically singled out Mutermilchowa for comment on numerous occasions. See Apollinaire, *Oeuvres en prose Complètes*, Vol II, P. Caizergues & M. Décaudin, eds. (Paris: Gallimard, 1991) pp.151, 179-180, 227, 262, 315, 376, 385 & 449 for example. She also frequently exhibited at the Salon des Indépendants and Salon d'Automne (for the first time in 1905). See Gill Perry, *Women Artists and The Parisian Avant-Garde* (Manchester: Manchester University Press, 1995). Dr Georges Chicotot also frequently exhibited at this Salon, in 1903, 1908, 1909, 1910, & 1911. George Ribemont-Dessaignes, painter-friend of Picabia and collaborator with 291 and 391, associated with Dada, also exhibited at the Salon de la Société Nationale des Beaux-Arts in 1909 (exhibit nos 1588 & 1589) at the same exhibition medical subjects appeared in work by Albert Morand and an exhibit of work by the wife of eminent microbiologist Elie Metchnikoff (exhibit no.840, Mme.O. Metchnikoff).

Other examples of avant-garde artists who exhibited along side mainstream artists included Gino Severini who showed work at the Salon de la Société Nationale des Beaux-Arts in 1909 along with others such as Jaques Villon whilst both exhibited at the Salon d'Automne of that same year. These are just a few of the frequent examples to be found in exhibition catalogues of the period.

[20] G. Apollinaire, 'Before the Opening of the Salon de la Nationale', *L'Intransigeant*, 13th April (1912). Translated and reprinted in BR.p.231.

[21] For example Brouillet's portrait of Dr Charcot or Henri Gervex's portrait of Dr Péan, and avant-gardists as diverse as Picasso portraits of Dr Ramon Pérez Costales & his Uncle Dr Salvador Ruiz Blasco ; André Rouveyre portrait of Dr Metchnikoff ; Duchamp portrait of Dr Dumouchel ; Modigliani portrait of Dr Paul Alexandre ; Albert Gleizes *Portrait d'un médecin militaire*, 1915.

[22] In *The History of Sexuality* Foucault's analysis of sexual epistemology describes two epistemes of sexuality: *ars erotica*, typically characteristic of ancient and non-western cultures concerned not with the nature of the sexual but only with the sexual itself, and *scientia sexualis*, emergent in modern western society, that is the hermeneutics that aims to discover and transmit the scientific truth of sexuality itself. The nineteenth century discourses of medicine, psychiatry, law and pornography produced and circulated knowledge of the sexual. See Michel Foucault, *History of Sexuality* vol.1, trans. R.Hurley (Penguin, 1981) pp.51-73.

[23] Race scientists such as Francis Galton (Darwin's cousin and founder of the British Eugenics movement), and in France, Dr R.Verneau ; anthropologists such as Dr Paul Broca, Dr Paul Topinard, Havelock-Ellis; psychologists, anatomists and criminologists such as Dr Jean-Martin Charcot, Dr Henri Meige, Dr Emile Laurent, Cesar Lombroso & Richard Krafft-Ebing.

[24] See Nancy Leys Stepan, 'Race and Gender : The Role of Analogy in Science' in *Isis*, No.77 (1986) for a concise, yet detailed, account.

[25] Sloping brows and bad teeth for example. See Anthea Callen, op.cit. pp.20-29. Brain size was another physiological factor used by scientists in reinforcing the analogy between race and gender; see for example Paul Broca, 'Sur la volume et la forme du cerveau suivant les individus et suivant les races' in *Bulletin de la Société d'Anthropologie*, No.2, Paris (1861). Female smaller brain size was readily equated with smaller brains of 'lower species', apes in particular. It is also interesting to note that certain art critics and writers were using medico-scientific references of this nature in their work during the period under investigation, often with specific gender connotations. For example Octave Uzanne, 'Artists and bluestockings' in *The Modern Parisienne* (Heinemann, 1912) pp.125-33, uses Lombroso's work to justify his assumptions about the female artist never being able to achieve what the male artist can and further that 'genius' is specifically a masculine trait.

“ What is the reason of this absolute lack of genius properly so called among women?[...] M.Cesare Lombroso, the celebrated Italian physiologist, whose studies are so audacious and whose conclusions are so strange, has lately, in *L'uomo di genio*, described the difference between genius and talent, and denies genius to women, for the following reasons: 'In all vertebrate animals', he says, 'the female is inferior to the male in intellect. The aesthetic sentiment is apparent primarily in the males.[...] The curious

and paradoxical physiologist even goes so far as to say that there are no women of genius, and that if they manifest it, it is by some trick of nature, in the sense that they *are men*. Edmond de Goncourt had already expressed this view, but Cesare Lombroso develops it, and tries to prove that Mme. Staël, George Eliot, and George Sand were men in physique, in voice, in gesture, and in all the manifestations of their activities. This extreme view, although crude, touches on a great truth. Genius in women is chiefly confined to the emotions, and rarely ascends to the higher regions of thought.[...]

[26] Octave Mirbeau, *Le jardin des supplices* (Paris: Eugene Fasquelle, 1899) p.XVIII.

[27] A theme of explicit patriarchal signification in relation to the discourses of science and gender, which was later to be the subject of L. E. Barrias's famous sculpture *La Nature se dévoilant devant la Science* (1899) Musée d'Orsay.

[28] Baudelaire, from *The Salon of 1846* states,

“The Nude -that darling of the artists, that necessary element of success- is just as frequent and necessary today as it was in the life of the ancients; in bed, for example, or in the bath, or in the anatomy theatre. The themes and resources of painting are equally abundant and varied; but there is a new element- modern beauty”

(Original published as *Art in Paris 1845-1862: Salons and other Exhibitions Reviewed by Charles Baudelaire*. trans.and edited by J. Mayne (Phaidon, 1965) ‘On the heroism of modern life.’ see pp.116-20.

Although the male nude was the norm in the life classes at the Academies and in the Salons for much of the nineteenth century, the increasing interest in the female nude by artists and salon going public alike meant that by the later part of that century to refer to the ‘nude’ in art invariably meant the *female* nude. For general discussion of this topic see R. Parker & G. Pollock, *Old Mistresses. Women, Art and Ideology* (Routledge & Kegan Paul, 1981) and Tamar Garb, ‘Gender and Representation’ in F. Frascina, et al, *Modernity and Modernism. French Painting in The Nineteenth Century* (New Haven and London: Yale University Press and The Open University, 1993) pp.219-289. Baudelaire’s ‘The Painter of Modern Life’ in *Le Figaro*, 26th & 28th November and 3rd December (1863) also contributed greatly, albeit unwittingly, to the gendered construction of modernism and the modern artist as being quintessentially male; the *flâneur*, the ‘dandy’ and painter of modern life is quite emphatically male and woman is merely his muse, subject or a ‘heroized’ prostitute and symbol *par-excellence* of urban *modernité*. See particularly section x and xii of Baudelaire’s text, ‘Woman’ and ‘Women and Prostitutes’ respectively in Charles Baudelaire, *The Painter of Modern Life and Other Essays*. trans.& ed. J. Mayne (Phaidon, 1964 & 1995) pp.30-39. Janet Wolff has also written about the gendering of modernism in ‘The invisible *flâneuse*: women and the literature of modernity’ in *Theory, Culture and Society*, vol.2, no.3 (1985) pp.37-46.

Baudelaire’s writings on the arts had a powerful impact on the development of Symbolist aesthetic theories from the 1860s and on later developments in

art practice and theory. His close association with the Romantic artist Eugène Delacroix developed an authoritative and articulate aesthetic formulation for the arts. His ideas were even more widely known following his death in 1867 with the publication of his literary and artistic criticism as well as much of his poetry; C. Baudelaire, *Curiosités esthétiques* (Paris: Lévy, 1868); *Les fleurs du mal* (Paris: Lévy, 1868); *L'Art romantique* (Paris: Lévy, 1869). For more detailed discussion of Symbolist art theories see Henri Dorra, *Symbolist Art Theories. A Critical Anthology* (Berkeley, Los Angeles: University of California Press, 1994).

The phallogocentric assurance of French Decadence and Symbolism owes much to figures like Baudelaire and to later writers such as Joséphin Péladan, (1858-1918) also known as Sâr Péladan, self-styled magus and initiator of the Salons of the Rose+Croix, whose Right-wing, Catholic Rosicrucianism was also of interest to avant-gardists such as Apollinaire and his circle. Symbolist artists such as Moreau, Redon and Rops retain a patriarchal, sometimes misogynistic iconography, the staple image being woman, as madonna or whore, decadent or deity. The popularity of these themes is evident from the numbers of public attending the Salons but also through the continued fascination with such themes as evidenced by their later up-take by artists operating in the early twentieth century.

[29] Marie Laurencin produced a portrait of Dr Tzanck in this period. She knew Dr Anault Tzanck (1886-1954) doctor and biologist, from his acquaintance with Apollinaire and Duchamp from 1912 when he was a medical intern at the Saint-Louis hospital in Paris. It was his brother, the dentist Daniel Tzanck who was the inspiration for and recipient of Duchamp's *Tzanck Cheque* in 1919. For further detail on the Apollinaire-Laurencin-Tzanck brothers' relationship see Peter Read, 'Gestes et Opinions Du Docteur Tzank, Défenseur de L'Art Moderne, Virtuose de L'Art Dentaire, Ami de Guillaume Apollinaire.' in *Que Vlo-Ve?*, No.20 (1986) pp.3-22.

[30] Such observations, whilst secondary to the overall thesis remain worthy of comment since their very existence has a bearing on the conception of avant-garde aesthetics and the way in which medico-scientific iconography was mobilised in other works.

Chapter Two: The Body Of Evidence. Anatomy, Surgery & The Body.

2:1 Anatomy, Art and Academic Training.

The Renaissance was a period that looked back to look forward, a renewal of more concerted interest in the classical world. Yet innovation in science and art marks the period. The most graphic representation of the relationship between art and science in the Renaissance period is perhaps to be found in the anatomical drawings by artists such as Titian. His work was used to record the anatomical explorations of Vesalius, who is credited with producing the foundational text of modern anatomy, *De humani corporis fabrica*, 1543.^[1] Artists and anatomists shared a relationship right up to the early twentieth century with art academies and schools such as the Ecole des Beaux-Arts appointing Professors of Anatomy to teach artists basic anatomy as an aid to more accurate drawing of the human body.

It could be argued that these interests and themes were taken up by those avant-garde artists working in the early twentieth century, particularly those working in Paris and in contact with the self-styled Renaissance man, the poet-writer Guillaume Apollinaire.

The relationship between art and science was one evident before the Renaissance, but it was to that period that many artists and writers turned for inspiration and reference in their constant search for innovation and difference from the immediate past.^[2] In some respects this represents a continuation of art-school ideals but now turned against the conventional ends of academic art production. Such artistic training was familiar to many would-be avant-gardists from Matisse and Picasso to Duchamp and Masson.

Since the Renaissance, artists have devised geometric models of the ideal proportions of the human body based on their readings of late classical texts. Leonardo da Vinci (1452-1519), whose writings were familiar to several members of the Cubist circle, inscribed the human body in a circle and square,[Fig.10 *Vitruvian Man*, 1490] and later provided illustrations for Fra Luca Pacioli's treatise *De Divina proportione*, 1509, which posited the idea of the human body as centre of the macrocosm, a symbol of universal order.^[3] Albrecht Dürer (1471-1528) took measurements of more than two hundred people for his *Four Books On Human Proportions* published in 1528. In this treatise he outlined five canons of human proportions for man and woman, (gross and rustic, tall and thin, moderate and so on) and he proposed a geometric method for the modification of the body proportions. Michelangelo Buonarroti (1474-1564) also deployed geometric measurements in his representation of human proportions.^[4]

It was not until the nineteenth-century that scientists and doctors, such as Paul Broca (1824-1880) and Alphonse Bertillon, developed more systematic means of measuring the human body for the purposes of categorisation, be it criminal, racial or social taxonomies. (see chapter three below for more detail on this area of medico-scientific discourse). Such was the impact of Renaissance ideas concerning the 'ideal body' and its reinvocation by nineteenth century scientists, criminologists and anthropologists that even in the early twentieth century the artists under consideration here developed their pictorial formal language (either by drawing on, subverting, or a combination of both stances) in relation to the hegemonic doctorines of ideal human proportion in visual representation that marked artistic output since the Renaissance. Picasso's

works, particularly from 1907, could be said to subvert such artistic canons of human proportion. As Antliff and Leighten have noted, in 1907 Picasso drew upon Albrecht Dürer's anthropometric sketches of the 'ideal proportions' of the human body for his own anti-academic purposes.^[5] Picasso saw Dürer's Dresden sketchbook, (published in Paris 1905) in Spring 1907. Sketches by Picasso for *Les Femmes d'Alger*, (1907), reveal some formal affinity with some of Dürer's sketches. [Fig.11 & 12] However, as chapter three of this thesis demonstrates, Picasso, and other artists, would have been aware of anthropometrics from a variety of sources: from formal artistic training (in Barcelona in Picasso's case), from popular cultural sources, and from the interests of intermediaries and friends such as Apollinaire.

Anatomy, then, played a significant role in the shaping of artistic practices. The most obvious images of art and anatomy, or anatomy as art, are represented by the sketch books of Leonardo which were then of some interest to those within the Cubist circle. During the period of 1506-1512 Leonardo was particularly engaged in anatomical research and dissection of corpses at a Florentine hospital. He saw the human body more in terms of mechanics and through careful observation and visual recording of body parts endeavoured to understand its complex workings.^[6] Working with anatomy professor Marcantonio della Torre from 1506, Leonardo attempted to take further the contemporary understanding of the human body that had come from the writings of the Classical physician Galen.^[7] Dissection became a public visual spectacle as evidenced by the frontispiece of Andreas Vesalius's *De humani corporis fabrica*, 1543, showing Vesalius dissecting a cadaver in Padua.^[8] Richardson has

speculated on the similarity in posture between Picasso's *Dryad* (1908) and a plate from Vesalius's *De humani corporis fabrica*. [fig. 13.]^[9]

The images of anatomy and dissection from early drawings, engravings, woodcuts and wax models, well known in general to artists, as well as oil paintings such as Rembrandt van Rijn's *The Anatomy Lesson of Dr Nicolaes Tulp*, (1632) or later more satirical engravings such as Hogarth's *The Anatomy Lesson. The Reward of Cruelty*, (1751), often reveal gendered conceptions and assumptions in the representation of male and female bodies. Males are often shown in poses that conform to the male-active construct, shown either in heroic tension, standing, moving or if the male cadaver is horizontal and being dissected, the male doctors and anatomists are shown engaged in serious 'scientific' observation or discussion. [fig. 14, Rembrandt, and Fig. 15, Adriaen Backer.] Females are invariably shown in passive poses: horizontal, or sitting, often conforming to masculine scopophilic prerogatives. [Fig. 16 and Fig. 17] Ludmilla Jordanova has argued that such images, and the writings of Francis Bacon (1561-1626) and René Descartes (1596-1650) helped to construct the trope of nature as feminine and science as masculine.^[10] Yet such binary oppositions are in fact constructed from apparent dichotomies and paradoxical signification. Jordanova notes that in medical discourse woman was seen both as softer and yet tougher, more vulnerable, yet more tenacious than men.^[11] These paradoxical constructs also inform the representation of the female body by certain avant-garde artists. Picasso's *Les Femmes d'Alger (O. J. Version O)*, for example, is discussed in Chapter Three of this thesis and the work of Rouveyre, Duchamp and Picabia is addressed below.

Medical images of the eighteenth and nineteenth century were circumscribed by discourses of gender and the aspect of body image as it was bound up with cultural and sociological perceptions of male and female identity. Jordanova examines the wax anatomical models of the late eighteenth-century which were made predominantly in Italy but dispersed throughout Europe. The differences between female and male wax anatomical models is marked. The female waxes, known as ‘Venuses’, were often displayed on silk or velvet, ‘in passive yet sexually inviting poses’.^[12] Often recalling more religious imagery, these models carried implicit (often explicit) secular signification of a gendered and scopophilic nature.^[13] The verisimilitude of these models added to their ‘objective’ anatomical accuracy, yet also carried more voyeuristic and sexual signification. In this case, adherence to ‘naturalism’ does not posit an idea of this being an exact copy of nature, it is mediated by and through patriarchal, gendered discourses of both art-historical conventions and medical discourse.

The wax models such as those in Fig 18, and 19, from *Encyclopaedia Anatomica*, represent ‘woman’ both as a sexual and medical signifier. Thus woman is more firmly aligned with the biological, natural world, and the observer, the doctor/scientist, with a masculine world of clinical observation, objective thought and scientific discovery.

Nineteenth-century writers such as Jules Michelet helped to reinforce the idea of ‘woman’ as symbiotically connected to the concept of ‘nature’.^[14] Woman as nature can be scrutinised with impunity by the male doctor/scientist. It was just such a conception of gendered assumptions regarding nature and science that experimental physiologist Claude Bernard (1813-1878) articulated in his widely read *Introduction to the study of Experimental Medicine*, 1865. The

experimenter is presented as heroic, he is both ‘theorist and practitioner’, active, and controlling nature itself. As Bernard wrote, ‘the experimenter doubtless forces nature to unveil herself by attacking her with all manner of questions...’.^[15] Thus Barrias could present a sculpture in 1899 which was emphatically feminine and assume, with assurance, the implied masculine viewer. *La Nature se dévoilant devant la Science* [Fig.6] represents science as implicitly male and nature as explicitly female. The scopophilic gaze is doubly engendered by both art and medico-scientific discourses here.

As Jordanova has noted, veiling and unveiling have distinctly sexual and gendered connotations. It is invariably the female that is veiled and unveiled, in the harem, as the bride or here, as nature. Such epistemes of gendered sexual knowledge extend to the medical atlases of the period.

G. J. Witkowski’s *Anatomie iconoclastique* published between 1874 and 1877, was one of many anatomical atlases that were intended as medical text books and contained coloured fold out sections of human anatomy which the reader could lift up outer sections of skin/epidermis to reveal the inner organs, muscles or veins. As Tamar Garb notes, Witkowski’s volume on female anatomy contained a vividly coloured fold out diagram that was intended to give a sense of the three-dimensional character of female genitalia.^[16] [Fig.20] Its two-dimensional format presents the cropped torso of the female showing just the top of the legs, the genital organs and part of the abdomen. It recalls the wax anatomical models of the Italian school of anatomy at Bologna. [Fig.21] Both depict pubic hair, in the interest of scientific verisimilitude, yet simultaneously can be seen as conforming to standard modes of display of female genitalia in erotic or pornographic images.^[17] Witness Courbet’s *L’Origine du monde* 1866,

[Fig.22]^[18] privately commissioned by the Turkish diplomat Khalil Bey, in which the female torso is cropped in a similar fashion, allowing penetration of the pictorial space directly between the models legs. Here the scopophilic male gaze is explicitly invited. No covert visual consumption under the guise of medical or scientific investigation is needed, the model is already ‘unveiled’. Unveiling implicitly signifies the revealing of ‘truth’ and ‘knowledge’, as well as sexually unimpeded voyeurism.

The motif is revived by Picasso in 1907. It is no coincidence that Picasso’s *Demoiselles d’Avignon* appear from a curtained, or veiled, space. Perhaps building on his earlier work, *Two Nudes* 1906, Picasso takes the curtained, veiled space to a more fragmented and flattened abstracted form in *Les Demoiselles d’Avignon*. Such a pictorial device could symbolically represent ‘otherness’ (harem/veiled women) as well as sexual and anatomical unveiling. The ‘curtain’ motif acts as a metonymic displacement of the hidden vaginal space. In formal terms the fragmented ‘curtain’ helps to break up the surface of the painting and render the pictorial space more impenetrable visually, reinforcing the fetishized and dangerous signification of the Africanised females in Picasso’s painting. Picasso also produced many erotic drawings that more graphically inscribe this type of sexualised representation of the female body. See fig.23 (drawing of a nude female displaying her vagina) for example, which clearly shows the vaginal space represented both literally in the female’s pose and symbolically in the drawing which surrounds her body. Of course Picasso’s ‘curtain’ motif/signification in *Les Demoiselles* could also be mobilising an art-historical reference, in part, to Manet’s *Olympia* (1863) and in turn to Titian’s *Venus of Urbino* (1538). Both have curtained areas framing the reclining

nude female, perhaps equally signifying the ‘interiority’ of the biological feminine space, hidden in both Titian’s *Venus* and Manet’s prostitute, as well as in Picasso’s *Demaiselles*. It acts as a similar metonymic displacement of the vaginal space whilst simultaneously giving the assurance of ‘knowledge’ (here a sexual knowledge) being exposed or unveiled.^[19]

As Jordanova has noted, it is the combination of hiding and revealing which accounts for the erotic dynamic of veiling/unveiling. ‘It also implies a form of truth beneath a layer which only certain people (generally men) may reveal.’^[20] Dissection can be seen in such terms. The peeling back of skin, the revealing of the hidden truth of what lies beneath operates in a similar way. The removal of skin is the emblematic act of the production of knowledge.^[21] However, early images of dissection tended to be of the male body, with only an occasional exception.^[22]

The obsession with the female corpse appears to be more of a phenomenon associated with the late eighteenth and nineteenth century. Jordanova sees this as unsurprising since the erotic was ‘an integral part of the fascination with death characteristic of [...] Romanticism.’^[23] In fact the conjunction of the morbid and the erotic could also be seen in certain Symbolist images of the late nineteenth and even early twentieth century,^[24] as well as in certain avant-garde artists’ work such as Picasso (see 2.3 below).

The differences between the male and female body represented in anatomy and dissection can also be found in the anatomical studies at the Ecole des Beaux- Arts in Paris in the late nineteenth and early twentieth centuries. Anthea Callen has addressed the issue of how art and medicine worked symbiotically in the process of formation and transformation of ideas about the

body through the use of visual images.^[25] Under the direction of Mathias-Marie Duval (1844-1907) who was Professor of anatomy at the Ecole des Beaux-Arts from 1873-1903 dissection was reduced. Duval valued evidence provided by the live figure over that of the cadavers the students had been given to dissect in earlier times.^[26]

Dr Paul Richer took over the chair of anatomy in 1903 and although instruction by dissection was not completely abandoned, he also favoured the live model and what he termed the 'Science of the nude'.^[27]

François Sallé's *The Anatomy Class at the Ecole des Beaux-Arts* (1888) [fig.24] celebrates the work of Duval. It shows the 'modern' anatomy class, using a live body, as contrasted to the use of a dissected cadaver, (symbolically represented in the painting by the *écorché*, a modern flayed figure by Jacques-Eugène Caudron (1818-65)) and Duval is centre-stage with the male model. The model stands in a quintessentially male-gendered pose, in heroic tension, muscles flexed. Such images act as signifiers of the gendered assumptions present within patriarchal society concerning the representation of men and women in visual culture, in medical discourse and in society. Thus Henri Gervex's painting *Before the Operation Where Dr Péan Chief at l'Hôpital Saint-Loius, discovered Clamping of Bloodvessels*, Paris (1887) [Fig.5] and Pierre-André Brouillet's *Charcot lecturing on Hysteria at La Salpêtrière* [fig.2] of the same year, show the more common construction of the passive female, the visual embodiment of nature. In Gervex's painting she is horizontal, prone and her partially naked body is subjected to the medical gaze, and simultaneously the scopophilic male gaze. Surrounded by the medical élite her naked breast and upper body are, none the less, the focus of the painting, representing

nature/biology being scrutinised and controlled by a masculinised construct of medicine and science. Similarly Brouillet's painting showing eminent physician and *alienist* Jean-Martin Charcot (1825-93) and his female patient, Blanche Wittman 'performing' at one of his Tuesday lectures, again symbolically represents nature being observed and ultimately controlled by science and medical investigation. Charcot provoked an hysteric attack in his patient so the audience could witness the physiological contortions of the body that are symptomatic of hysteria. Here Charcot is shown as the rational embodiment of masculinity contrasted to the hysteric, the irrational female, closer to the unconscious and to 'primitive' emotion than the male. Such constructs of masculine and feminine gender roles marked the period and were also a feature of the early twentieth century.

Anatomists, such as Duval and Richer also played a part in the unconscious promotion of such gendered constructs, indeed they are both represented in Brouillet's painting along with other eminent medical men of the day including Babinski, Gilbert Ballet, Georges Tourette and medical photographer Albert Londe.^[28] Duval, in the climate of increasing interest in anthropology and race science, also extended his anatomy course at the Ecole des Beaux-Arts to include study of the 'human races' and their anatomical characteristics.^[29] Duval and Richer were in fact more interested in the study of the live human subject than the anthropometric studies of skulls and skeletons that were characteristic of anthropological approaches.^[30] Richer, who was interested particularly in the mechanics of physical movement, collaborated with Albert Londe, in the production of a series of photographs, first of the male subject, later the female, to show the physiology of the human body in movement. The earlier

photographs of males, (working class men, athletes and circus performers), displayed muscular movements and tensions, often ‘augmented by poses in imitation of classical sculpture -- Gladiators, *Davids* after Michelangelo, *contrappostos*’.^[31] In contrast to this, the photographs of female nudes taken after 1900 often have a sexual overtone, even ‘coquetishness’ about them. [fig.3]. As Callen has argued, Richer saw science as offering a truth of ‘what is’, and art as simply expressing what should be, ‘following the ideals of beauty’. However, the ‘scientific’ images of men and women in his photographic analyses of human physiognomy in fact correspond to socially constructed notions of the two sexes, thus ‘science [as well as art] was equally implicated in culturally driven perceptions of the human body’.^[32]

In fact the very premise of a canon of ideal beauty is overturned in many avant-garde works. In order to counter the hegemonic prescriptions of ideal body type the artists obviously had to have an understanding of that model of human physiology in the first place. It is no coincidence then that both Matisse and Rouveyre, amongst others, were taught artistic anatomy by Duval at the Ecole des Beaux-Arts.^[33]

2.2 Symbolism and Subversion. The signification of Distortion in the Representation of the Body.

André Rouveyre (1879-1962) was a student at the Ecole des Beaux-Arts with Albert Marquet, Georges Rouault and Henri Matisse amongst others. His close friends included Remy de Gourmont, André Gide and later Guillaume Apollinaire.^[34] Rouveyre’s work became a focus of interest for the dying Polish-Jew, anarchist and philosopher Mécislas Golberg, whose posthumously

published text, *La Morale des Lignes* (1908) expounded an aesthetic doctrine based on quasi-scientific, philosophical and Symbolist/expressionist ideas.

Golberg had spent part of his education studying at home, reading a variety of works by major thinkers of the period: Haeckel, Taine, and Darwin for example.^[35] He went on to study medicine in Geneva.^[36] As Neil Cox notes, Golberg, like many others trained in nineteenth-century science, revolted against such scientific positivism by the 1890s and embraced a more irrationalist, Symbolist philosophy.^[37] Golberg was acquainted with Alfred Jarry and Apollinaire by 1904, both of whom identified with the Polish bohemian 'outcast'.^[38] His early theories were marked by what has been called a 'physio-psychological' ideology.^[39] Indeed he returned to his medical studies in 1900, and it is possible to argue that this medico-scientific knowledge informed, to an extent, the aesthetic theories that culminated in his *La Morale des Lignes*.

In a series of articles published as *De l'esprit dialectique* (L'Abbaye Press, Créteil, 1907), Golberg shows in 'De La Beauté' an idea of 'beauty' in the midst of 'ugliness and mediocrity', a development of Baudelarian ideas that leads to the notion that 'To develop an aesthetic vision it is therefore necessary to avoid the constraint of religious, rational or emotional considerations.'^[40] Such a paradox as 'beauty' from 'ugliness', and the emphasis on individualism also seems to invoke a Nietzschean idea of transvaluation, anti-positivism and inversion of outward appearances.^[41] Such sentiments, of finding beauty in the midst of ugliness, continued in aesthetic theory and art practices well into the twentieth century, and beyond.^[42]

From 1905 Golberg was in a sanatorium at Avon, near Fontainebleau suffering from tuberculosis. Rouveyre, who had paid for Golberg's stay at the

sanatorium^[43] was working on his collection of drawings entitled *Carcasses Divines*. This contained two suites of drawings on the appearance of a comedienne and an actress. Cox argues that this led, in part, to the production of Rouveyre's later work, *Le Gynécée* in 1909.^[44]

Golberg was interested in Rouveyre's and Matisse's work. Indeed, Matisse's *Notes of A Painter* 1908, it has been argued, drew upon Golberg's ideas and articles on aesthetics.^[45] In a sense what both Matisse and Golberg were trying to articulate was an idea of a universal law, derived from individualism and spontaneity of an aesthetic kind. Golberg's *La Morale des Lignes*, as Cox notes, 'promised to extract from Rouveyre's album an "absolute idea", a law or principle, as embodied in the aesthetic of the drawn line and the moral and philosophical meanings with which it could be endowed'.^[46] Golberg's text appears to emphasise individualisation as central to art practice and this is bound up with the idea of 'veracity' or realism.^[47] He uses modern science and its apparent objectivity in his treatise, but invests this with 'extraneous psychological interest'.^[48] However, Golberg does not embrace modern science unreservedly. His discussion of M. Bertillon, referring to the anthropologist, criminologist and disseminator of anthropometrics, Alphonse Bertillon (1853-1914), notes that Bertillon's use of stable elements (the measurement of skulls or bony parts of the body) in fact superimposes a simplified reality on a complex one- that of the diverse 'personalities' as Golberg has it.^[49] Golberg goes on to say that if Bertillon 'sought absolute reality he would reconstruct an individual by a simple diagram, by two lines, by a simple series of functions'.^[50] However, he states that 'sometimes a bohemian visionary rebuilds the 'personality' better than all the anthropometric science of M. Bertillon.'^[51] For

Golberg, artists like Rouveyre are better equipped to ‘interpret’ *qua* represent, the personality. As Cox notes, Golberg’s first observation about Rouveyre is to praise the way he abstracts and simplifies the subject, whilst simultaneously extracting a deeper ‘truth’.^[52] This neo-Platonic idea of the ‘essential’ element of things anticipates the interest in neo-Platonic thought that was a feature of early Cubism and the theoretical debates surrounding certain art practices from 1910 through to the outbreak of the First World War. Golberg’s ideas about reality being deformed or distorted was based on the notion of reality as a myriad of perceived facts or points from which the artist selects. Abstraction, simplification and distortion are the crucial elements of creativity.^[53] Again, such ideas seem to anticipate the later development of formal as well as philosophical ideas surrounding the genesis of Cubism.

It is Rouveyre’s drawings however that form the material evidence for Golberg’s thesis. In his volume of drawings of women, *Le Gynécée*, 1909, Rouveyre displays a marked level of distortion and abstraction, more so than his earlier portrait sketches. The album’s *Glose* was written by Remy de Gourmont. It is a parable of sexually charged, misogynistic and gendered descriptive passages, dealing with the ‘unveiling’ and display of the female body.^[54] De Gourmont’s text claims that Rouveyre represents women as they really are, under the ‘mask’, under the corset, ‘as God has made them’, ‘not as they are created in[...] imagination’.^[55] However, Rouveyre graphically reproduces the constructs of women that parallel those in patriarchal society and in pornographic discourse. According to Golberg, Rouveyre was able to capture the ‘essence’ of the individual character, yet here Rouveyre parades a gamut of sexual stereotypes, a misogynist lexicon of female sexuality and quasi-anatomical-cum-

pornographic postures with references to Sade and even, as will be discussed below, to contemporary fiction. As Cox has noted, de Gourmont's 'lurid, feverish and even pathological fantasy of an introduction' had references that related to both Sadean themes and Apollinaire's interests.^[56] Certainly the pornographic element of Rouveyre's drawings is evident. As Cox has noted, Rouveyre's drawings of contorted females are generally shown 'with great swathes of hair'.^[57] He notes that this has no parallel with Picasso's female nudes, but does have some connection with Matisse's work. This seems a rather unconvincing point. Matisse's nude figures from the period 1905-7 appear to have more affinity with Rouveyre's distortion of line than depiction of hair. Matisse's *Nu Assis*, 1906, [Fig.25] *Nu endormi dans une chaise*, 1906, or *Femme assis* 1906 and even preliminary drawing for *Bonheur de Vivre: Joie de vivre*, 1905-6 share, to an extent, the distortion of line found in Rouveyre's work [Fig.26] but the hair in most of Matisse's images is pinned up. In fact the sexual signification of hair is crucial to understanding the transgression involved in Rouveyre's representation of the female body, and to his anarchic interpretation of formal training in anatomy.

Rouveyre's contorted females in *Le Gynécée* not only graphically represent pubic hair, but they often have long, untamed, head hair. On one level this conforms simply to the signification of abandoned, free sexuality, since adult women in this period invariably had their hair pinned up, the loosening and letting down of hair stands almost as a parallel to 'veiling' and 'unveiling', but also signifies letting go of conscious control, and thus aligns the female more with her so called 'primitive' sexual state, closer to nature, closer to the animal. On another level the images correspond with those images taken by Dr Paul

Richer at the Salpêtrière, both in drawings of female hysterics [Fig.27] and photographs taken from the late nineteenth century through to the early twentieth [Fig.3& 28]^[58] These images have a formal affinity with the bizarre contortions found in some of the female nudes in *Le Gynécée* and their untamed, ‘swathes’ of hair.[Fig.29 &30] The drawings by Richer of an attack of hysteria show the female human body in convulsive contortions that simultaneously carry sexual signification. Equally Richer’s later photographs show female nudes in a variety of positions, from classical poses to those with a more medical, even criminological, signification. Tellingly certain models are photographed wearing a blindfold, wishing to remain anonymous, and avoiding the full impact of the medical/scophilic male gaze. [Fig.3] It brings to mind a passage from de Gourmont’s ‘Glose’, referring to some of Rouveyre’s nudes;

‘[...]like the ostrich, she will try to cover her eyes, in order to make believe that she does not see that we see her. This ruse is perfectly within the logic of her character because she does not doubt her bodily beauty, and the idea never occurs to her to hide her sex of which the tender parts are sheltered and of which the master organ is completely internal.’^[59]

[see Fig.31, from *Le Gynécée*] Such images of human morphology by Richer mentioned above, would have almost certainly been familiar to Rouveyre, not least from his training at the Beaux-Arts, but also arguably through his friendship with Golberg and the latter’s medical training.^[60] Both Rouveyre and Golberg take the more prescriptive doctrines of, on one hand, artistic anatomy, and on the other medical models of human morphology, and overturn them in favour of a more radical, avant-garde inversion of such canons of ‘ideal beauty’ and ideal body types.^[61]

Cox has noted the similarities between Rouveyre’s images of female nudes in strenuous poses and the preliminary drawings Picasso made for *Les Demoiselles*

d'Avignon. He appears to be claiming a formal affinity between Rouveyre's work and Picasso's subsequent development of a more distorted line, as a type of proto-Cubist stylistic in his work from 1908.^[62] The formal affinities between such artists work are materially evident from comparison of certain works, [Fig.32 and 33] yet the reasons for such affinities are open to debate.

The kaleidoscopic lens of art-historical discourse enables different aspects of a work to be focused on simultaneously by different authors, often reaching quite different explanations for the development of a certain style or production of an art work. In fact, all could be equally valid interpretations, yet due to the different focus, a different set of ideas can be engendered by the same work. For the purposes of this thesis I am linking medical discourse with avant-garde art in the period specified, and this leads to a particular accent and focus for the discussion. Accordingly the argument here is more of an *addition* to the discussion of avant-garde artists and their work and the various catalysts for formal, stylistic change and development. Thus it is possible to argue that outside of the aesthetic 'dialogue' between Picasso-Matisse-Rouveyre-Golberg, external sources, such as artistic anatomy training that both Matisse and Rouveyre (and to an extent Picasso) underwent and the medical training of Golberg played a crucial part in the shaping of their aesthetic approach. Given the established anarchist activities and interests of all these individuals at one time or another ^[63], it is not implausible to argue that the training they received represented part of the establishment they wished to overturn and challenge. It has already been shown that Golberg's *La Morale des Lignes*, whilst using reference to certain models of a medico-scientific nature in fact overturns them in favour of more expressionist, individualist theories. In a similar way the artists mentioned above

take the anatomical canon of ideal body-type and distort it to create new meaning and emphasise an anarchic difference from both contemporary academic salon painters and those of the past. It doesn't wholly do away with the classical, 'ideal' model, it sublimates the signification of that model and is used to signify a departure from such ideals and an embrace of 'difference' and the modern.

This however is only one part of the various discursive constructs that could be argued to inform the painterly practice of Matisse and Picasso in this period. Indeed Apollinaire's role in disseminating certain theories and ideas is also pertinent to the understanding of Picasso's work particularly. Not only did Apollinaire own many of Rouveyre's books and illustrations, including *Carcasses Divines* 1906-7, and *Le Gynécée*, 1907-9, he also had in his collection Golberg's *La Morale des Lignes*, of which he had a high opinion.^[64]

The poet's interest in such material could indicate another source for Picasso's shift in formal concerns as evidenced by the so called 'primitive' paintings and drawings that follow *Les Femmes d'Alger* in the distortion of the idealised body type of the academic anatomy of the female nude. Here Picasso's works from 1909 [Fig.34 & Fig.35] seem to validate the sentiments expressed by Golberg and articulated through Rouveyre's work. It is not possible to rehearse the vast number of different and competing claims made for and about both artist's works here, however, Chapter Three of this thesis discusses Matisse's *Blue Nude* (1907) and Picasso's *Les Femmes d'Alger* (1907) in more detail.

Rouveyre's work has other possible iconographic sources including contemporary popular literature. Cox has noted the 'bestial' analogies and signs

of aggression toward the female body in the work of Matisse, Picasso and Rouveyre.^[65] Cox asserts these aggressive images of women implied ‘a wholesale collapse of the normal practices of looking and receiving pictures upon which art depended’.^[66] However, the male gaze and the scopophilic consumption of such images is based, in part, on the processes of fetishisation, thus based partly on fear and its displacement imposed on the sexual parts of the female ‘other’. So whilst the distorted body type disavows the standard, normative mode of male visual consumption, (it blocks the normal assurance of the phallogentric ‘gaze’) it is still signifying as ‘naked’, as ‘female’, as ‘other’. Thus the schematised nude female bodies of Picasso’s *Demoiselles* or certain of his later ‘primitivised’ works [see Fig.34 and Fig.35] or of Matisse’s *Blue Nude*, can still engage with the established practices of ‘looking’ and the signification of the female nude, but the semantic network of signification of the distorted body type transgresses the normative values encoded in ‘ideal body’ morphology (paradigmatically represented by both Cabanel’s and Bouguereau’s version of *La Naissance de Vénus*, both 1863, for example)^[67] and throws into stark relief the easy assumption of scopophilic pleasure engendered by such images.

The dialectic tension in the signification of such distorted schematic ‘bodies’ appears to play out, in part the ideas articulated by Golberg in his *De l’esprit dialectique* of 1907. The apparent paradox of ‘beauty’ from the ‘midst of ugliness’ in fact reinforces the fetishistic nature of such images. Simultaneously such images engender fear and desire, they are debased and degenerate, yet alluring and sexual, a monstrous paradox that has found expression in the writings of diverse authors such as the Marquis de Sade, Octave Mirbeau and de Gourmont. In the case of Rouveyre, the expressionistic ‘essence’ of his

characters is arrived at by more precise and ‘coldly’ logical means. De Gourmont’s ‘Glose’ talks of Rouveyre’s ability to cut through the mask of women, of the cold and ruthless way Rouveyre uses lines ‘that still seem to enter into the swelling flanks like tense fingers, and others that remain like bites’, and how Rouveyre sees the musculature and skeleton beneath the women in ‘postures of furore whose agony is still screaming’.^[68] Rouveyre dissects and strips his models to the bone. The dandy critic Comte Robert de Montesquiou writing in his essay ‘La Cage des masques’ in Rouveyre’s *La Comédie Française de Rouveyre* states that

Notre jeune et résolu tortionnaire m’apparaît encore, dans cet étonnant Album, comme une sorte de Docteur Moreau de la vivisection dramatique.^[69]

This reference is almost certainly to the Dr. Moreau of H.G. Wells’ *The Island Of Doctor Moreau*, first edition published in 1896 by William Heinemann, London.^[70] *The Island Of Doctor Moreau* concerned an experimental vivisectionist doctor, somewhat in the tradition of Shelley’s irresponsible Dr. Victor Frankenstein. In a laboratory on the island Moreau creates ‘humanised’ animals, called the Beast People. Moreau rules everything on the island and controls the beast people through fear. They are ‘human in shape, yet human beings with the strangest air about them of some familiar animal’.^[71] Rouveyre’s strange animal-like women in *Le Gynécée* [Fig.36 & 37] would appear to graphically articulate such bizarre fusions of the animal and human. They are of course drawing on sexual/pornographic imagery and in the ‘Glose’ de Gourmont notes their bestiality:

Those laces conceal a she-wolf and under those white clouds, there’s a tigress who restrains her caterwauling, a lioness who would like to roar. [...]so many mouths and so many wombs gaping towards passion end by

appearing to us as shadowy holes opening onto nothingness.[...] The spectacle is prodigious, of these taunted or collapsed bodies, of these delirious limbs, of these bovine rumps, of these goats legs, of these breasts and these udders, of these thighs that open like scissors, of these frantic vaginas with immeasurable fissures.[...]Finally, the beasts. We have glimpsed, suddenly undressed, the tigress, the lioness, the she-wolf. Here are the bear, the goat, the ewe, the bitch, the cat, the frog and the monkeys.^[72]

Such a description recalls the gruesome experiments of the vivisectionist Doctor Moreau of Wells's novel. His experiments on animals had the sole purpose of turning them into humans, or at least 'humanised animals- triumphs of vivisection'.^[73] The truth of this grisly experimental biologist is only revealed gradually to the narrator, Prendick, a naturalist, who was shipwrecked on the island. In Chapter 14 of Wells' novel, 'Dr. Moreau Explains' the lurid descriptions of the transformation of the animals into humanised creatures, dealing with mutilation, pain and perverse pleasure seem to parallel, to a degree, De Gourmont's prosaic text accompanying Rouveyre's *Le Gynécée*. Moreau's experiments creating humanised animals were not 'successful', they inevitably degenerated to type, revealing their animal natures and grotesque 'primitiveness'.^[74] The narrative is infused with atavistic fear and morbid fascination with degeneracy. Just as for Lombroso it was 'woman' who more readily exhibited the signs of atavistic or pathological degeneracy (see chapter three for more detail) in Wells' novel the female beast people are all the more repulsive and grotesque for their abject female sexuality which signifies their reversion to the animality of the human species.^[75] The abhorrent vivisectionist experiments doubly engender the contemporary moral outrage at such gendered monstrosities.

It could also be argued that Rouveyre, Golberg and de Gourmont were writing and producing artwork that was very much a product of its time in

relation to the ongoing anti-positivism and extension of Symbolist revolt against Naturalism.^[76] The rise in experimental and evolutionary biology during the nineteenth century also informs the novel by Wells who became a renowned advocate of eugenics. The public fear of a Faustian type of evolutionary control by scientific obsessives is the counter side of the scientific positivism that believed in the disinterested power of scientific knowledge to improve life. The paradox is apparent and the representation of the beast people in the novel induces both pity and revulsion.

The scientific detail in the book, dealing with amputation, transplant of tissue from one part of the animal to the other, antiseptic surgery and so on was authentic. Wells's own training under T.H.Huxley led to a degree in biology, and a note in the first edition of the novel (omitted from later editions) assured the reader that 'there can be no denying that whatever amount of scientific credulity attaches to the detail of this story, the manufacture of monsters-and perhaps even of quasi-human monsters-is within the possibilities of vivisection'.^[77]

As the ultimate leitmotif of a darker more sinister side of the optimistic, utopian, idea of medico-scientific discourse, 'monsters' or anatomical monstrosities, grotesques and deformed bodies were of particular fascination to the public in the late nineteenth and early twentieth centuries. Fig.38, for example, shows a bill-poster from circa 1885 for a public exhibition of anatomy put on in Belgium by the Paris and Florence *Musée Anatomique* which included wax anatomical models. Such spectacles were a popular attraction and most major European cities, including Paris, regularly had such exhibitions and shows.^[78] Experimental activity in surgical procedures and more widespread dissemination of medical images of the monstrous, the deformed and the

grotesque added to the public's morbid fascination with 'freak' shows and fictional monsters from Shelley's *Frankenstein* to Villers de l'Isle Adam's *Eve Future*. The material examples from medical discourse represented in such 'spectacles' seemed to make manifest those fictional monstrosities. These connections will be addressed below in 2.2.

The model of the sinister, cold and cruel obsessive scientist that Dr. Moreau represents is echoed in de Gourmont's assessment of Rouveyre's ruthless and cold eye, dissecting his models to reveal the inner truth and essence of their being. Turney has also noted the startlingly close proximity of the sentiments expressed in Claude Bernard's *Introduction to the Study of Experimental Medicine* 1865, to those expressed by the fictional Dr. Moreau. Bernard states:

The physiologist is not an ordinary man; he is a scientist, possessed and absorbed by the scientific idea that he pursues. He doesn't hear the cries of the animals, he does not see their flowing blood, he sees nothing but his idea, and is aware of nothing but organisms which conceal from him the problems he is wishing to resolve.^{179]}

Again the construct of the Scientist unveiling the secrets of Nature is reinforced here. Bernard (1813-1878) was an eminent vivisectionist and experimental biologist who studied first pharmacy in Lyon and later was Professor at the Sorbonne. Although vivisection was not new, the widespread use of such experimental procedures in the late nineteenth century was.^{180]} The reconstitution of medicine on a scientific basis was a feature of the rise in experimental physiology and biology throughout Europe. The rise in legislative power of medical men in nineteenth-century France, under hygiene laws and the regulation of society through state intervention, engendered, in part, a popular hostility and ambivalence towards medicine and science where any beneficial ends were not deemed to be justified by questionable or abhorrent practices.

Anti-vivisectionist feeling became prevalent in the late nineteenth and early twentieth centuries.^[81] It was fuelled partly by moral outrage towards the perceived cruelty towards animals but also by fear that what was becoming permissible in biology with regards animal experiments may be extended to humans. As French has noted, the treatment of animals in the laboratory came to symbolise the spiritual bankruptcy of science.^[82]

Rouveyre's drawings of animal-like women are also shown in poses reminiscent of torture, flaying and dissection [Figs.29, 30, 33, 39 & 40.] One in particular evokes the frontispiece to Thomas Bartholin's *Anatomia Reformata* 1651, where the text is shown inscribed on the flayed skin of a man, and also Vesalius's flayed man of 1534. [Figs.41 & 13] Far from the passive images of female wax anatomical models, Rouveyre's female bodies are shown contorted, writhing or in postures reminiscent of images of male dissection and flaying. Witness Stradanus, *Apollo Flaying Marsyas* c.1580-1600; Micheal Angelo's *écorché*; the flayed figure from Versalius' *De Humani Corporis Fabrica*, or an anatomical drawing by Rubens [Figs.42, 43 & 44].

The latter three were all reproduced in Mathias Duval's *Histoire de L'Anatomie Plastique* of 1898, an anatomy text book intended for art students and presumably familiar to Rouveyre from his training in anatomy by Duval at the Beaux Arts.^[83] Rouveyre's more active physiological specimens are thereby displaying a transgression of the normal passivity to which images of female nudes are more usually subjected. Indeed this transgression and overt sexuality is seen by de Gourmont as creating a fusion of masculinity and femininity, 'There is no longer a male and female, there are two hermaphrodites. Each, in their fever, possesses the two genders. Lust is creative'.^[84] This is something that

Picasso's *Demoiselles* also seems to engage with (see chapter 3 & 4 of this thesis) and the interest in the androgyn, hermaphrodites and alchemical symbolism is something that de Gourmont would have been familiar with from Symbolist interest by figures such as Sâr Péladan. It is also something that Apollinaire and his circle engaged with. (see chapter four of this thesis).

Overt display of female sexuality is often represented as 'masculinising' the female subject. From Manet's *Olympia* to Picasso's images of prostitutes and primitivised bodies, the overtly sexual female body is shown to display the physiological features of masculinity. (See Chapter three for further discussion)

The obvious pornographic element in Rouveyre's work did not go unnoticed either. Cox cites, amongst other detractors of Rouveyre's *Le Gynécée*, the 'Président de l'Alliance bernoise masculine contre la Pornographie' who brought legal proceedings against the German periodical *Simplissimus* for the publication of a few drawings from *Le Gynécée*.^[85] In fact literary models of such imagery could also be argued to have informed Rouveyre's graphic practice. Neil Cox addresses the impact of Sadean themes on both Apollinaire's writing and Picasso's *Demoiselles*.^[86] Sadean imagery could be seen to inform Rouveyre's drawings to an extent, and the modernity of Sade's writing in his challenge to convention and to God was something that appealed to Apollinaire as much as the sadistic pornographic imagery of his work. However, it could be argued that rather than direct 'influence' of Sadean themes on Rouveyre's drawings for *Le Gynécée* it was through authors such as Octave Mirbeau (1848-1917) Jules-Amedée Barbey d'Aureville and even Villiers de L'Isle Adam (1838-1889) that those images and sentiments were mediated and disseminated.

The early twentieth century was a period of cross-fertilisation of ideas and

the legacy of nineteenth-century literary Symbolists and anarchists informed those artists and writers working in Paris in that period. By 1903 Apollinaire had met a number of anarchist/Symbolist thinkers including Alfred Jarry, Octave Mirbeau and Gustave Kahn.^[87] By 1904 he was also in contact with Golberg.^[88] Rouveyre's contact with first Golberg and later Apollinaire would indicate that the ideas motivating such writers would have been very much part of that cultural milieu. Interest in Friedrich Nietzsche (1844-1900) and the Marquis de Sade (1740-1814) by such people has been documented.^[89]

Rouveyre had certainly met Mirbeau by 1908; a drawing of Mirbeau appears in Rouveyre's *Visages des Contemporains 1908-1913*, published by Mercure de France in 1913. As Brian Stableford has noted, the misogyny found in Mirbeau's writing was something that was very much part of the climate in which he operated.^[90] His friend Barbey d'Aureville also displayed such convictions in his collection of short stories *Les diaboliques* (1874). The idea that the facade of convention and politeness conceals terrifying depths of moral depravity was something that was particularly associated with women; under their mask of virtue lay a murderous callousness.^[91]

Villiers de l'Isle Adam's *Contes Cruels* (1883), continued the misogyny.^[92] Mirbeau's *Le Jardin des supplices* (1899) (translated as *The Torture Garden*) is frequently represented as deriving much from the Marquis de Sade's works, particularly certain passages found in *Juliette*, '[partly]because the method of both works requires detailed description of particularly nasty methods of torture and execution'.^[93] Sade's work was marked by an atheist philosophical premise. If there was no God, then there must be no reward or punishment, no salvation or damnation, therefore what possible argument can there be to choose 'good' over

‘evil’. The atheism that Sade invokes is based on its transgressive and therefore desirable nature. For Mirbeau it was less taboo to explicitly embrace atheism. It also did not imply a lack of morality *per se*, it meant more that religious morality was overthrown in favour of a different perception of morality. *The Torture Garden* reveals the hidden and lurid reality beneath the deceitful facade of bourgeois life, masquerading as virtue. He draws out the graphic realities of the callousness and perversity of so called ‘civilised’ man. ‘Where Sade set out slyly to create moral unease, Mirbeau set out forthrightly to call forth moral outrage’.^[94]

Mirbeau’s decadent novel exposes socio-political and individual moral corruption. The narrator travels to China and meets Clara who shows him the Garden of Tortures, an exotic place of macabre flowers, in the vein of Baudelaire’s *Les fleurs du mal*, and explicit sadism. The opening section sets up the femme-fatale construct of woman.^[95] However it is Clara ‘the enchantress of the charnel house and angel of decomposition and decay’, the female protagonist, who is seen to savour and enjoy vicariously the exploits of the Torture Garden. The graphic descriptions of torture and corpses in Mirbeau’s text almost exclusively refer to men.^[96] The description of the sadistic Clara is augmented by a later description of the darkest depths of female lust and abandonment that seem similar to de Gourmont’s language in his ‘Glose’ for Rouveyre’s *Le Gynécée*.^[97]

Mirbeau’s text simultaneously aligns him with decadence, Symbolism and anarchism, but it was an anarchism that was less political than intellectual. In fact it could be argued that many of the literary Symbolists were drawn to

anarchism more for its political equivalent of the individualism they advocated in literary and aesthetic practices.^[98]

Rouveyre's distorted female bodies invoke the Sadean *Torture Garden*, simultaneously with the images of medical discourse as outlined above. Thus anatomical distortion in Rouveyre's work, as in the work of Matisse and Picasso in 1907, can be seen to have a variety of sources and explanations.

2.3 Mechanical Bodies and Monstrous Creations

Other artists, such as Duchamp, Picabia and later Surrealists, such as Ernst, Masson and Bellmer have also turned to anatomical models for innovation and metaphor in their work. Most obvious in the connection with anatomical/medical discourse is Duchamp's *Nude Descending a Staircase* 1911 and 1912. [see Fig. 1]

This has frequently been connected to both the work of chronophotographer Etienne-Jules Marey, and to Dr Paul Richer's collaboration with Albert Londe, who used Londe's chronophotographs in his many books on anatomy and movement such as *Physiologie artistique de l'homme en mouvement*, Paris 1895.^[99] The anatomical connection is evident, not just from the comparison of Duchamp's work with the page from Richer's text [Fig. 45] and examination of the stills from Marey's work, but also in various interviews Duchamp expressed the anatomical thinking behind the work.^[100]

Dalrymple-Henderson examines Duchamp's work in relation to contemporary interest in innovative medico-scientific techniques such as X rays and other technologies. This theme is addressed in more detail in chapter 5 of this thesis. For now the focus is on the anatomies as described by such radical painterly practices as Duchamp's in *Nude Descending a Staircase*, Picabia's

mechanomorphic paintings and later works such as those by Surrealist artists André Masson and Max Ernst.

It has been argued that the relationship between the arts and sciences shifted in the nineteenth century due, in part, to the 'shift from mathematical cosmology of the Enlightenment to the Darwinian biogenico-evolutionary model.'^[101] A biocentric orientation is seen as characteristic of Western cultural production in the nineteenth century, where the 'metaphor of the living, evolving organism [replaces] the metaphor of the mechanical, none evolving clock'.^[102] As Cartwright notes, Foucault has argued that the shift from eighteenth-century natural history to nineteenth-century biology engendered a change in relationship between representations and things.

...this space of order is from now on shattered: there will be things, with their own organic structures, their hidden veins, the space that articulates them, the time that produces them; and then representations, a purely temporal succession, in which those things address themselves (always partially) to a subjectivity, a consciousness, a singular effort of cognition, to the 'psychological' individual who from the depths of his own history...is trying to know. Representation is in the process of losing its power to define the mode of being common to things and to knowledge.^[103]

Thus whilst pathological anatomy had centred its visual representation on static concepts of morphology and structure, the rise of interest in physiology regarded the body in terms of its living functions and processes, methods and techniques were thereby devised to facilitate a temporal dynamic vision of the body in motion.^[104] The development of the Cinématographe, an instrument for recording and projecting living motion, by Auguste and Louis Lumière in 1895, was a crucial technique for such disciplines within medico-scientific practice.^[105] The parallel development of chronophotography by Etienne-Jules Marey was, in part, a technique to chart normal human physiological movement. It

functioned as a disciplinary technique in that its physiological analyses helped determine a more efficient use of limbs in locomotion. In contrast to this Charcot and Albert Londe's serial photography of hysteric patients at the Salpêtrière was intended to chart abnormal movement and the stages and signs of pathological degeneracy and external effects of organic and psychogenetic disorders. (Charcot and hysteria are addressed in chapter 5 of this thesis.)

The shift in focus from the static, anatomised body to the dynamic, moving body was a feature of late nineteenth and early twentieth century interest for physiognomists and artists alike. However, it should be remembered that:

While this progression from stasis to movement, from anatomy to physiology, seems to suggest a narrative of technological advance, it must be kept in mind that physiology did not replace anatomy but emerged as a related specialisation in its own right.^[106]

Similarly, the shift in focus from static bodies to those in movement, as we see in Duchamp's *Nude Descending A Staircase* does not wholly do away with the underlying idea of anatomy.^[107] An interesting connection with the medical photography of Londe and Duchamp's work is via Duchamp's brother, Raymond Duchamp-Villon. Duchamp-Villon was a medical student in Paris before turning to sculpture. As an intern at the Salpêtrière hospital in 1898 he had been in contact with Albert Londe. Londe was a pioneer of X-ray research, and Director of the Photographic and Radiographic Division at the hospital and this has a bearing on certain of Duchamp's other works (see chapter 5) but the obvious connection here is with the series of photographs he developed and the possible link to Duchamp's development of his so called 'elementary parallelism', his desire to represent movement in a static form.

Londe's development of a high-speed camera capable of making multiple exposures on the same photographic plate has also been suggested as a possible source for informing Duchamp-Villon's sculpture and the paintings of František Kupka from as early as 1908.-09.^[108] The Duchamp-Villon family friendship with Kupka dated from early 1900 when Kupka became Jaques Villon's neighbour on the Rue de Caulaincourt in Montmartre, and later in 1906 both moved to Puteaux where Raymond Duchamp-Villon lived from 1907.^[109] Margit Rowell has also noted that Dr.Marey organised an exhibit of 'instruments and images relative to the history of chronotography' at the Paris World's Fair in 1900, at which Kupka had also exhibited a painting for which he won a gold medal.^[110] It can therefore be assumed that such a climate of shared interests and ideas made it possible for such medico-scientific imagery and innovation to be more freely available to artists working in Paris at that time.

The representation of the body in Duchamp's *Nude Descending a staircase* 1912, appears to simultaneously engage with stasis and dynamism. It builds on a slightly earlier oil sketch *Sad Young Man in A Train* 1911, which in Duchamp's own opinion was unfinished:

'There isn't much of the young man,there isn't much of sadness, there isn't much of anything in that painting except a Cubist influence. My interpretation of Cubism this time was a repetition of schematic lines, with out any regard for anatomy or perspective-a parallelism of lines describing movement through the different positions of a moving person.'^[111]

However, it was in *Nude descending a Staircase*, 1912, where the more defined linear form of anatomy and human physiology in locomotion was articulated.

This dualism, dealing with stasis and dynamism, could be argued to be a feature of the *simultaneity* that is associated with Cubist representation, particularly the

range of paintings designated by Apollinaire as Orphic Cubism.^[112] Duchamp's *Nude descending a Staircase* no.1 was, however, rejected by the Puteaux Cubists for the Salon des Indépendants in March 1912, which signalled not only the beginning of his retreat from Cubism but also from group artistic endeavours that the Puteaux Cubists represented. Of course Duchamp had a good role model for this anarchic individualism in Picasso and Braque and their refusal to be co-opted into the Cubist group linked to Gleizes and Metzinger, in which his brothers Raymond Duchamp-Villon and Jaques Villon also participated. Although *Nude descending a Staircase*, No.2 was accepted for the Barcelona Cubist exhibition in April 1912 and later was part of the Section d'Or exhibition of Puteaux Cubist work in Paris, Autumn 1912, Duchamp began working independently of the group in 1912.

The shift in his style and pictorial reference in his paintings in 1912 is marked. It was a year in which he met Apollinaire and had more contact with Picabia, who he had met in 1910/11.^[113] The title of Duchamp's painting was seen as too literary by some of the Cubists who first rejected it. Indeed Duchamp has freely acknowledged his interest in literary sources, particularly Jules Laforgue. Duchamp stated he was more interested in this writer's titles than in his poetry as such. He has also cited Lautréamont, Mallarmé and Roussel as sources and has stated that his early art practice was 'intimately and consciously involved with "literature".'^[114] With that in mind and the climate of interest in science, technology and the arts in which Duchamp operated it is possible to connect his work with more literary precedents of mechanical anatomies. The text most frequently cited in connection to Duchamp's work *Nude descending a Staircase* and *The Bride Stripped Bare By Her Bachelors, even*. 1915-23 (also

known as the *Large Glass*) is Villiers de L'Isle Adam's 1886 novel *L'Eve Future*, and is also a frequent reference in studies concerning technology, medicine and constructs of femininity.^[115] However, before discussing that novel, it is worth considering an earlier work by Villiers de L'Isle Adam that also makes use of technology and medical discourse.

Villiers de L'Isle Adam's novels were partly concerned with Symbolist interest in science and the occult, but frequently used science against itself in an ironic or satirical way. In his 1867 novel *Claire Lenoir* de L'Isle Adam makes use of the concept of an innovative medical procedure, the 'optogramme'. This presented the fantastical idea of the body as camera, an idea that was used in fictional works long after it was scientifically discredited. In 1870 the theory of the 'optogramme' was published by Dr Vernois, a leading member of the Society for Legal Medicine of Paris.^[116] Dr Vernois and Dr Bourion claimed that after surgically removing the retinas from murder victim's eyes, they discovered the 'imprint' of the murderer's image.^[117] The body here is the guardian of a secret knowledge that is beyond that of its own internal matter; it has to be surgically opened to reveal that knowledge.

Villiers de L'Isle Adam's novel combines occultist and spiritualist theories in conjunction with the rationalism of its narrator, Dr Tribulat Bonhomet. The doctor uses an ophthalmoscope to ascertain the final vision imprinted on the retina of the dead Claire Lenoir. The inspiration for Villier's reference came from publications concerning the optogramme concept that appeared before Dr Vernois's publication, but which were, never-the-less, symptomatic of public interest in such fantastic medico-scientific claims.^[118] The climax of the narrative focuses on the female body, subjected to both the masculine and medical gaze.

The narrator, Dr Tribulat Bonhomet, express his discomfort in analysing the corpse, whilst acknowledging that ‘thousands’ of female cadavers are daily examined throughout European surgical amphitheatres, morgues and hospitals.^[119]

This bizarre fusion of the female body and technological procedure could be seen at least as analogous to some of Duchamp’s preliminary paintings for, and elements of the *Bride and The large Glass* in which the biological and the technological are fused in a philosophical, hermetic signification of the female body. The impact of popular cultural references to such ideas as ‘retina images’ could also be seen as yet another potential source for both Duchamp and Picabia’s mechanomorphic paintings. Such references appear in the novels concerning the French fictional detective Rocambola in the late nineteenth century and appeared in Pathé’s film *La Decouverte du Docteur Mitchoff* of 1911. The poster for this film shows a bizarre apparatus for obtaining the retinal image, consisting of a camera and a magnifying glass focused on a dead man’s eye.^[120] Given Duchamp and Picabia’s interest^[120] in photography, machines and the cinema, such images could well be argued to have informed their stylistic shift towards the machine aesthetic in their paintings from 1912/1915 respectively.

The concept of human functions and movement being akin to those of machines was something that, as Henderson has argued, was deeply rooted in French culture.^[121] From Descartes’ mechanistic philosophy of the human body in his *Discours de la méthode*, (1637), where the body is described in terms of a clockwork automaton, to his disciple Julien La Mettrie’s *L’Homme Machine* (1747) where the distinction between animate and inanimate matter and between body and soul were rejected, the machine as human, or the human as

machine idea was not a new one.^[122] It was more, as Henderson has noted, that the *technology* to which human beings were compared was new and modern.^[123]

Henderson cites numerous sources of a mechanistic nature for Duchamp's work, including automata found at the Musée des Arts et Métiers and the automobile trip he went on with Apollinaire and Picabia in October 1912 to the Jura mountains amongst other detailed iconographic sources.^[124] Villiers de L'Isle Adam's novel *L'Eve Future* (1886) is cited as another source for the idea of the humanised machine. In this novel a fictional Thomas Edison, based on the actual inventor of the phonograph and cinematography, creates an android for Lord Ewald that is the ideal female. The difference from the human female on which the mechanical woman 'Hadaly' is modelled, is imperceptible. The female android's interior brings to mind certain aspects of the iconography employed by Duchamp in *The Bride* and related works. Dissection of her body reveals that:

[Her] interior is a maze of electrical wizardry including coded metal discs that diffuse warmth, motion and energy throughout the body; wires that imitate nerves, arteries and veins; a basic electro-magnetic motor, the cylinder on which are recorded the[...]facial expressions[...] of the adored being; and two golden phonographs that replay Hadaly's only discourse, words "invented by the greatest poets, the most subtle metaphysicians, the most profound novelists of this century."^[125]

But just as Descartes' machine man was not human since it was devoid of a soul, Villiers' android requires the spark of humanising life from an abandoned mother. Henderson details the close proximity of Duchamp's *Bride* with aspects of Villiers novel but makes the important distinction that whilst Duchamp, Villiers and Jarry (in *Le Surmale*) borrowed from late nineteenth-century physics, particularly the work of William Crookes, both Jarry and Duchamp were working after the discovery of X-rays in 1895 and were deeply interested in

electromagnetic waves. She argues that Villiers use of electromagnetism and other scientific references are more overtly occult in orientation than Jarry's or Duchamp's use of such references^[126] However, this is to miss the crucial understanding of the socio-historical context in which Duchamp was operating.

In a climate of rapidly changing technology it is true that artists such as Duchamp were drawn to the latest fantastic innovations, yet what they symbolised for such artist's was more of a *confirmation* of the occult, spiritual dimension that had preoccupied many avant-garde artists in the early twentieth century from Kandinsky and Mondrian to those artists in contact with Apollinaire and Max Jacob: Picasso, Chagall, Duchamp and Picabia for example.

It is possible to argue that these artists were both embracing modern technology and making reference to more esoteric, ancient practices of alchemy, the occult and hermeticism. Indeed Henderson's desire to place the artists firmly in the modernity of their time disavows the impact of those older, more prosaic influences. This aspect of representing the 'unseen' and hermetic signification of the works is addressed in chapters 4 and 5 of this thesis.

The construct of the scientist creating life has a history and legacy that would have been familiar to Duchamp. Electricity was the spark of life that created Frankenstein's monster in Mary Shelley's classic 1818 Gothic tale just as it did in Villier's *L'Eve Future* . Electricity also informed Duchamp's conception of and notes for *The Large Glass*. (see chapter 5). Life-creation myths also have a parallel to the alchemist's transformation of matter. In the sixteenth century Cornelius Agrippa and Paracelsus were reputed to have a 'recipe' of how to generate a homunculus from blood, faeces and semen, and Albert Magnus in the thirteenth century was reputed to have built a servant from

brass.^[127] The ambivalence of these themes (the machine/man-made monster can both liberate and enslave, the scientist can both save and destroy, the artificial human can be both a utopian and dystopian vision) has a relationship with both Duchamp's and Picabia's 'machine' aesthetic. The symbolic function of the mechanomorphic paintings of these two artists and the use made of the machine by very different artists such as those associated with Purism is addressed below.

Key to understanding the continued fascination with a subversive interest in medical discourse, the machine and anatomy almost as an anti-aesthetic by artists in the post-war era is the legacy of Cubism and Apollinaire which is briefly outlined here.

The pioneering spirit of pre-war aesthetic and literary endeavours was replaced after 1914, according to Kenneth Silver, by 'a far more austere, moralistic and circumspect cultural climate'.^[128] The outbreak of the First World War created a climate in which, broadly speaking, two different and opposed attitudes to the war and its effects could be discerned amongst the various groups of artists across Europe. On the one hand a rationalist, logical aesthetic emerged which was bound up with the 'call to order'. The belief was that the war had been the outcome of a breakdown of shared values and social cohesion of which pre-war avant-garde art was a symptom of such decadence and degeneracy. The war itself came to be seen as a cleansing process, what Le Corbusier called the 'great test', a necessary sacrifice to re-establish a civilised order.^[129] Such an attitude towards War and its aftermath was associated with the Purist group in France. On the other side of this debate stood those artists who saw the war as the outcome of the pre-war 'barbarism'; the war represented the realisation of bourgeois values and social doctrines. This group of artists wanted to destroy and

sweep clean that social order to ensure that the carnage of war was not repeated.

The rhetoric was aligned with anti-rationalism, anarchy and was a destabilising influence that was associated with Dada and early Surrealism. However, as Batchelor and Silver have demonstrated, the apparent divisions in Post-war avant-garde art shared some common ground.^[130] They derived much of their ideas from the same intellectual and aesthetic discourses of the pre-war period. The legacy of Cubism, and in particular Apollinaire and Picasso, spanned the whole of the decade following the outbreak of the First World war and arguably beyond. Of course the competing post-war artistic groups placed a different value and orientation on the use they made of Apollinaire's writing and Picasso's paintings. This material became the focus for the various competing representations and debates.

The first Purist magazine *L'Esprit Nouveau* appeared in March 1920 in an on-going climate of French reconstruction, renewed nationalism and 'call to order' rhetoric. It contained the manifesto of the Purist 'group', founded by Amédée Ozenfant and Charles-Edouard Jeanneret. The title has been suggested to originate from Apollinaire's article that appeared in *Mercure de France*, December 1st 1918, 'L'Esprit Nouveau et Les Poètes', although Apollinaire first used the phrase in programme notes for Jean Cocteau's ballet *Parade*.^[131] Silver has argued that this article, published just one month after Armistice, 'was in fact only dealing in quotidian patriotic currency [...] although Apollinaire used 'esprit nouveau' as an artistic description he meant it to be understood in the nationalist sense'.^[132] Apollinaire stresses the return to order and discipline as the task of the post-war avant-garde, rejecting Germanic romanticism, and embracing a return to classicism, but a nationalist sense of classicism rooted in French

heritage.^[133] The language of order that permeated Apollinaire's article appears to have informed, to an extent, the Purist's manifesto appearing in 1920.

The manifesto and magazine of the Purist group drew upon scientific ideas and Darwinian evolutionary discourses in their attempt to locate a post-war aesthetic that was logical, ordered and had clarity where pre-war art practices had been misguided creating 'arbitrary and fantastic forms'.^[134] The rhetoric, as Silver has demonstrated, was informed by the 'call to order' and post-war reconstruction projects that were fuelled by a nationalist revival.^[135] The focus in their statement 'Purism' of 1920, was on logic and control, that a work of art should 'induce a sensation of mathematical order', with the strategy of inducing such order being sought in 'universal means'.^[136] The neo-Platonic interest in 'ideal forms' and universal principles was graphically represented in issue one of *L'Esprit Nouveau* and extends the pre-war interest in such concepts as articulated by the Cubists Gleizes and Metzinger.

The Purists also included pseudo-Darwinian evolutionary concepts, but applied to machines. Natural selection was extended to an idea of 'mechanical selection' and both were seen as 'manifestations of purification'.^[137] Contrasted to this formation of aesthetic ideas concerning the machine and its metaphorical use as emblematic of order, clarity and purification, was the work of artists associated with Dada such as Francis Picabia, working in Paris from before the war, and returning there after staying in New York from 1915-1919.^[138]

The machine aesthetic in Picabia's works appears to be an ironic parody of the reverence that Purism bestowed on the machine (Picabia's works of 1919-1922 for example, such as Fig.46) as well as invoking ideas and themes associated with certain key protagonists such as Duchamp and Apollinaire.

Picabia's arrival in New York in 1915 marked a sudden shift in style from his more Cubist inspired paintings such as *'Little' Udnie* 1913-14 to the mechanomorphic works exemplified by *Fille née sans mère*. 1915. [Fig.7]

Picabia claimed that arriving in New York 'it flashed on me that the genius of the modern world is in machinery, and that through machinery art ought to find a most vivid expression.'^[139] The machine for Picabia was 'part of human life-perhaps the very soul'.^[140] It functioned symbolically as a way of expressing human characteristics. Camfield has asserted that prior to the development of the mechanomorphic paintings, Picabia was already exposed to the ambivalent attitudes that certain writers and artists had for the technological advances in science, technology and the machine. As mentioned above, advances in medico-scientific technology and innovation in machine technology were met by ambivalence and even hostility fuelled by fear in public as well as artistic circles. The impact of these technological innovations was addressed by newspapers and journals and exhibits at worlds fairs and individual interest by writers such as Apollinaire, Alfred Jarry and Raymond Roussel, albeit often in parodying, ironic terms, further disseminated such knowledge of technology and science.

Jarry and Roussel 'employed pseudo-scientific procedures, mathematics and fantastic machines to mock the folies of men' in their writings and plays.^[141] Roussel's *Impressions d'Afrique* Paris, 1912, for example includes numerous descriptions of bizarre machines, chemists and pseudo-scientific phrases. Certain descriptions of machines in the text appear to anticipate the formal and stylistic characteristics of 'mechanical' paintings of Duchamp in preparation for *The Bride Stripped Bare By Her Bachelors, Even*, (begun in 1915 but abandoned in 1923), [Fig.47] as much as those of Picabia.^[142] Indeed Duchamp claimed

Roussel was a fundamental source for *The Bride*.^[143] Duchamp attended Roussel's 1912 stage adaptation of *Impressions d'Afrique* and has claimed Apollinaire as the person who first showed him Roussel's text that year.^[144] Paradoxically, Duchamp has been variously attributed with denying any 'influence' from Jarry's work as well as claiming that 'Rabelais and Jarry are my gods, evidently'.^[145] However, the anti-rational absurdity of Jarry was evident not only in Roussel's work but was taken up by Apollinaire and would have been known to Duchamp through such connections.

Samaltanos has indicated that Apollinaire took Picabia and Duchamp to see Roussel's *Impressions d'Afrique*, although this is disputed by some authors in interviews with Duchamp.^[146] Whatever the ramifications of this dispute, it is clear that Apollinaire had some bearing on Duchamp's development of certain aspects of the mechanical-bodies in his later works and on Picabia's development, from 1915, of mechanomorphic paintings with their somewhat esoteric titles. Duchamp's work of 1915 and Picabia's *Fille née sans mère* are perhaps two of the more central works associated with 'mechanical bodies'. Camfield has explored the close associations between Duchamp and Picabia in such works.^[147] However, as Samaltanos notes, Camfield fails to connect the development of certain elements in Picabia's work with Apollinaire. Picabia's titles for his works from 1912 on became increasingly 'literary' and revealed an interest in word games and anagrams. Samaltanos suggests that Apollinaire may have suggested the anagram *Edtaonisl*, a composite of e-t-o-i-l- and d-a-n-s referring to a 'star dancer' that Picabia saw on his first trip to New York in 1913.^[148] It appears on three paintings from this period including *Danseuse étoile sur un transatlantique* 1913 that Apollinaire owned.^[149]

The interest in word play and literary reference continued in Picabia's work and in 1914 he began using Latin phrases as inscriptions on his work, his so called 'psychological studies'. Camfield and Samaltanos have also shown that Picabia used the 'pink pages' from *Le Petit Larousse* dictionary for inspiration.^[150] These pages translated phrases from foreign languages and Latin. Copying freely from the dictionary, Picabia's titles and inscriptions added a mysterious, hermetic element to his machine-inspired works. Samaltanos asserts that whilst Apollinaire's use of Latin and foreign quotations in his poetry and writing presented them in their proper context, Picabia paraphrased and adapted or popularised them hiding their source. However it was Apollinaire's use of Latin that perhaps inspired Picabia to follow in that more literary vein. A poem written for Picabia by Apollinaire in 1914, published posthumously in December 1919, uses a Latin phrase but with contemporary signification.^[151] *A Francis Picabia* ends with the lines 'Et si tu dances le tango, Noli me tangere.' Hicken has noted that the reference to the Tango in a humorous juxtaposition with the Latin phrase was apt since that dance had become a popular craze in Paris during the latter half of 1913.^[152] Samaltanos speculates that the appropriation of the Latin version of Christ's direction to Mary Magdalen, *Noli me tangere*: 'do not touch me', may be a playful allusion to Picabia's womanising.^[153] However there may be a more medical implication here. As has been noted the poem was written after a walk that Apollinaire took with Picabia along rue de Rivoli.^[154]

Near the tower of St. Jacques they came across a curious shop front displaying medical bandages and accessories and a cast of a sculpture of Praxiteles. This, apparently, prompted the opening line of the poem, 'Praxitèle est un bandagiste'. Hicken notes that contemporary trade catalogues for such

medical accessories frequently show plaster casts of antique statuettes as suitable for the display of surgical belts and stockings.^[155] Such an incongruous conjunction of the classical with the medical would surely have appealed to the anti-rational humour of both men. Praxiteles' most famous sculpture was of Hermes (Mercury) found in mutilated state at Olympia in 1877.^[156] The common pluralism of associations with this mythological god such as theft (here plagiarism as theft perhaps?), magic, eloquence, games of chance, and guardian of roads (a reference to the walk along rue de Rivoli perhaps?) and the use that Apollinaire made of such mythological figures in his works and in playful references to friends, again ties the classical with the modern as does the veiled reference to a Renaissance 'cavalier'.^[157]

Picabia's use of the French translation of the Latin phrase *Prolem sine matre creatum*^[158] to title his 1915 drawing, *La Fille née sans mère*, (later seen on his painting of the same title in 1916-18 see Fig.7) and used as part of the title for his book *Poèmes et dessins de la fille née sans mère* Lausanne 1918, which was given to Apollinaire,^[159] has both medico-biological significance and relates to Apollinairean themes and interest.

Firstly the idea of the biological enigma of a motherless daughter would have appealed to Picabia's anti-rational humour and to the sense of creation from originality without model or precedent. It was noticed by Apollinaire who expressed his interest in the drawing in July 1915.^[160] Two years later in his lecture 'L'Esprit Nouveau et Les Poètes', November 24, 1917, Apollinaire articulated the biological paradox of machines as a motherless daughters conceived entirely by men.^[161] Samaltanos has also asserted that the biological monstrosity implied by the Latin *Prolem sine matre creatum* 'supported and

illustrated the main theme of Apollinaire's play *Les Mamelles de Tirésias*, completed and performed on June 24 1917.^[162] Indeed Tiresias exclaims 'Revenez dès ce soir comment la nature, Me donnera sans femme une progéniture',^[163] and in the introduction Apollinaire stressed the novelty of the topic, 'un homme qui fait des enfants, est neuve au théâtre et dans les lettres en général'.^[164] The topic of this 'surrealist drama' was bound up with ironic reference to contemporary concerns of depopulation and with absurd and 'surreal' images such as the androgynous bearded lady that permeates the narrative.^[165] (This play is again addressed both in chapter three and four of this thesis).

The two terms used by Apollinaire in 1917, *L'esprit nouveau* and *surrealism* informed divergent art practices in the post war era, Purism and Surrealism. Thus it is possible to argue that the dualistic, even paradoxical, significance of the rational, scientific and nationalist spirit invoked by the former and the irrationalism, 'chance' and incongruity of the latter term were very much reflecting the internal paradox and divergent interests of Apollinaire himself.

The legacy of this man, his interests and writings, particularly to those artists associated with early Surrealist work is something that has hitherto been of only passing interest to art historians. This seems odd considering that both the Purist and Surrealist groups openly acknowledged the significance of his writing in the conception of their distinct and diverse aesthetic practices.

Anatomy and machine aesthetics also informed later Dada and Surrealist works. For example the photomontages of diverse artists associated with Dada (and in Ernst's case later with Surrealism) such as Hausmann's, *Dada Siegt!* (1920) and *Tatlin At Home* (1920), and Ernst's works such as *Preparation of*

Glue from Bones (1921), *Die Anatomie (als Braut)* (1921), and *The word (Woman bird)* (1922) [Fig.48] and images associated with Surrealism such as de Chirico's works of 1914: *I'll be there...The Glass Dog* and *The span of black ladders* as well as his work of 1917/18 including *The Duet* (1917), *The Faithful Servitor* (1917) and *The Apparition* (1917), and Masson's representations of the anatomised body in works such as *The Armour*, (1925), *The Flayed*, (1926) and *Gradiva*, (1939) and later works such as Bellmer's *La Poupée*, (1936) that take to an even more extreme composite the bizarre juxtapositions of the machine and female anatomy.

Of course the use made of the body and anatomy in works such as Ernst's and those associated with Surrealism was bound up with the aim of representing the unconscious workings of the mind. This aspect of the interaction between avant-garde art and medico-scientific discourse is addressed in chapter five of this thesis.

2.4 The Dance of Death. Cadavers, Surgery, Disease and the Sick Body.

The final section of this chapter examines the diverse examples of intertextual references of a medical-anatomical kind with avant-garde art practices.

More overt references of a medical nature appear to have been made by critics and supporters of Cubism than to any other artistic movement in the pre-1914 period.

Apollinaire's reference and analogy to Picasso's art practice in early 1912 being akin to that of a surgeon dissecting a cadaver and producing an artistic transformation 'with the science and method of a great surgeon', was just one such medical analogy made, in this case, in support of the artist and his stylistic

modus operandi.^[166] For example in 1912, Picasso's drawings and paintings can be seen to render the anatomy of the human body as a dissected, cubistically schematised set of lines and forms. See for example, *Project for Human Structure*, Sorgues, 1912 ; *L'Arlesienne*, Sorgues, 1912; *Woman sitting in a Wheeled armchair*, Paris, Autumn 1912 and *Nude woman 'J'aime Eva'*, Paris, Autumn 1912. This stylistic process was begun some years earlier as a more defined characteristic formal quality of Cubism seen in drawings and paintings from 1909-1910 such as *Woman standing, from the Back*, Paris, Winter 1909/1910 or *Girl with Madolin (Fanny Tellier)* Paris 1910, and *Mademoiselle Léonie Standing*, Paris or Cadaqués spring 1910. Indeed the association of Cubism with anatomical dissection was made as early as 1911, in a comparison of Cubism with an anatomical atlas by the celebrated surgeon Dr Doyen.^[167]

In fact the discussion of the anatomy and proportions of the body, particularly in relation to artists such as Albrecht Dürer and Leonardo da Vinci, had informed some of the Cubist discussions of aesthetics at Puteaux, in Villon's studio and at Gleizes' studio in Courbevoie.^[168] Apollinaire's own fascination with a renewal of the classical ideal of a rational conception of harmony could well have had an impact on such Cubist discussions in which he participated. The poet's interest in the work of Agrippa von Nettesheim would have led him to an awareness of Alberti's *Exempeda* system of proportion, mentioned by Agrippa who drew upon Francesco Giorgi's *Harmonia mundi totius* which has been suggested as one of Dürer's likely sources for his theory of proportions.^[169] Giorgi discusses 'Vitruvian Man' and develops his ideas on the relationship between microcosm and macrocosm by relating particular proportions of the human frame to antique musical intervals. It is familiarity with such Renaissance traditions that provided

the framework for Apollinaire's defence of Cubism in April 1912, when he talks about geometric figures being the essence of draughtsmanship and geometry being the most basic rule of painting.^[170]

Contemporary developments in anatomy and medicine, such as those commented upon above comparing Dr Doyen's anatomical and surgical work with Cubist aesthetics and formal composition is yet another indication of how the avant-garde artists and their allies, such as Apollinaire, used both classical and Renaissance models, as well as current developments and topical examples from medical discourse in their pursuit of novelty and difference.

The use of 'dissection' as a metaphor of the Cubist aesthetic and the role that '*médecine et les médecins*' played in the critical reception of Cubism had been noted by Pascal Rousseau.^[171] He particularly addresses the metaphor of dissection that Apollinaire used to describe the Cubist's new representational method and the critical reception of Cubism by commentators who saw it as 'scientific' and the artists who practised Cubism as abandoning their studios for 'laboratories.'^[172] Apart from humorous connection of the avant-garde with medical discourse, as in the satirical illustrations found in journals such as *Le Sourire* where reference was made to a 'Dr Radinsky' and his search for the microbes of the 'terrible maladie' that drives the young avant-garde painters,^[173] more serious critical reception of Cubism considered its formal properties as symptom of the artist's pathology.^[174]

Dr Eugène Doyen (1859 Reims-1916 Paris) and his work being discussed in connection to Cubist formal principles in their painting practices was not as gratuitous as it may at first appear. He was widely known to the Parisian public because of a number of scandals reported in the press and through satirical

illustrations that further disseminated knowledge of this infamous, almost mythical medical figure. He had been associated with early innovations for cancer treatment and was celebrated for innovative techniques in abdominal and vaginal surgery as well as for the adaptation of many surgical instruments, ‘pince Doyen’ and ‘rugine de Doyen’ for example.^[175] Known as the ‘Barnum of surgery’, Doyen received much publicity for his involvement in the attempt to surgically separate ‘Siamese twins’ the Orissa sisters, in Paris. The operation was photographed, each stage was recorded by cameras.^[176] Unfortunately the twins died, but the resulting publicity added to Doyen’s somewhat ambiguous reputation. He wrote many surgical manuals that were richly illustrated but by the early twentieth century was associated with medical cinematography. Public screenings of his films started in the late nineteenth century. The first official screening in France of one of Dr Doyen’s medical films was 21st October 1898, against the advice of the *Academie de Médecine et de Congrès de Chirurgicale Paris*. Such films were of interest to the public, and arguably to the artists mentioned above. By the early twentieth century these medical films were widely shown in commercial theatres across Europe and America.^[177] A satirical illustration of Dr Doyen from *Le Rire*, No.465, 30 December 1911, makes reference to just such sensational medical films.

Dr Doyen’s notoriety was pilloried by *L’Assiette au Beurre* in the 29 October issue No.187, 1904, when Galanis produced illustrations of the Doctor for the cover and inside page showing him with bottles of ‘Doyen’ champagne. [fig.49] The reference was not gratuitous, Dr Doyen owned *un maison de vins de Champagne*, procured using the *grand fortune* he had amassed,^[178] and the illustration also picks up on the Doctor’s concern with looking elegant and

cultivating an audacious attitude. An earlier edition of the same journal included a 'portrait' of Dr Doyen by Léopold Braun showing the surgeon with a saw in his mouth in a satirical 'celebration' of the 'glory' of the grand surgeon and a caption saying we have 'le pince Doyen,[...]la scie Doyen, le thermo-cautère Doyen, le drain Doyen, il y a aussi le champagne Doyen...'^[179] But it was for a scandal involving a false cure for cancer that Doyen became more publicly renowned in 1908. The newspapers reported the court case that followed.^[180] Doyen's name and his work frequently appeared in newspapers and journals of the day including *La Chronique Médicale* and *Fantasio*.^[181]

Such periodicals were familiar to Apollinaire, he had a copy of *La Chronique Médicale* in his collection.^[182] After his premature death on 2nd December 1916, Dr Doyen was celebrated in a poem published by the magazine *Sic*, edited by the Cubist sympathiser Pierre Albert Birot.^[183] Apollinaire also specifically mentioned Doyen in 1914, and may well have been aware of a work by Alberto Savinio published in *La Voce* in 1916 that invokes Doyen and medico-surgical procedures.^[184]

It is not surprising then, given the notoriety of Doyen, that Picasso should include a newspaper clipping in his Cubist collage of early 1913 *Bottle and wine glass* that includes a reference to Doyen and his medical products *mycolysine* and *phymalose*.^[185]

Picasso's works from this period do appear, as Apollinaire suggested, to dissect the human body in the way a surgeon may dissect a cadaver during an autopsy. In fact images of corpses, autopsies and surgery abounded in contemporary satirical publications such as *L'Assiette au Beurre* and *Fantasio*. [Fig.50, Abel Faivre. *L'Assiette au Beurre* 1902, 'J'ai perdue mon alliance.';

Fig.51, dissection/autopsy of a soldier, *L'Assiette au Beurre* 1911; Fig.52 *Fantasio*, No.161, 1st April, 1913 'La Docteur Coaltar' by André Lorde illustration of surgery as 'an express train that is about to be derailed.']

The use of the corpse in medical training has often been a focal point for cultural concepts of death. Its widespread use only came about after the relaxation in anatomy laws in the early nineteenth century.^[186] However the moral prohibitions associated with the act of dissection continued to an extent, at least in the public imagination. Dissection of the corpse in the sixteenth century was recognised as punishment, even whilst simultaneously furthering the frontiers of medical knowledge.^[187] The demand for corpses by the medical profession created a situation that meant by the late eighteenth and early nineteenth century corpses were a commodity being traded for money, often sold as dismembered fragments of human bodies or measured and sold by the inch.^[188] Thus the corpse became another necessary commodity for the medical profession yet the violation of the body that dissection represented in the public imagination continued to engender ambivalent sentiment towards such practices even after the relaxation in anatomy laws. However, the spectacle of the Paris Morgue, where corpses were put on public display, ostensibly so that they could be identified, drew vast numbers of the public on a daily basis. The press coverage of the displays at the morgue and the numbers attending ensured heightened public awareness and even greater numbers flocking to witness certain key 'exhibits'.^[189] The public's paradoxical fascination with corpses then, engendered a type of 'gallow's humour' in the representation of dead bodies and dissection/autopsy in such satirical illustrations mentioned above.

The focus for Picasso on death and images of the dying was, however, often far from humorous. From his early paintings connected to the suicide of his close friend Carles Casagemas, and his 1902 paintings of *Dead Man* and *Head of a Dead Woman*, inspired by a visit to the morgue at the Hospital de Santa Creu I Sant Pau, to which he gained access through his friend Dr Jacint Reventós, a medical intern at the hospital, Picasso's images of the dead and dying have a sense of his purported Spanish morbidity and interest in '*misere humane*'.

However, death became even more closely associated with personal tragedy in 1915 when Picasso's then mistress, Eva Gouel died of cancer. Her illness began some years before, as early as June 1913 Max Jacob had commented upon Eva's deterioration in a letter to Apollinaire.^[190] Fabre has indicated his assumption that the painting *Woman in Shirt sitting in an armchair* Paris, Autumn 1913 is of Eva, and the pointed breasts indicate the 'exact nature of Eva's illness'.^[191] Presumably he means breast cancer, although he does not state this explicitly. Eva was the specified subject of three of Picasso's drawings: *Eva Dying*, *Eva on Her Deathbed* and *Eva Dead* all produced in Paris, in 1915. Fig.52.a. shows the body foreshortened in a similar way to Mantegna's representation of the *Dead Christ*,^[192] but also, and perhaps more appropriately, has a formal affinity with the way that the body is foreshortened in Rembrandt's *The Anatomy Lesson of Dr Joan Deyman*, 1656. [Fig.53] In Picasso's drawing the feet are more naturalistically represented than the body, which retains the Cubist stylistic form. Fig52.b. shows the body laid out and schematised, it recalls the anatomical dissections of cadavers and presentation of corpses at the morgue.

These more serious and morbid images run counter to the proliferation of humorous illustrations on the topic that appeared in newspapers and periodicals of the time. *L'Assiette au Beurre* had a special edition devoted to 'Les Médecins', 22nd March 1902, which was illustrated by J. Abel Faivre, a well known artist-illustrator. [see Fig.53.a] The periodical regularly had satirical illustrations concerning the medical profession [see fig.49 and fig.51]. The anarchic representation of the medical profession in such illustrations was not just an ambiguous, irreverent response to doctors and medicine in general, it was also partly fuelled by the *laissez-faire*, even outrageous behaviour of the young medical interns themselves. By the early twentieth century all hospitals in Paris had a *salle de garde* for their medical interns. This was more than a 'common room' for the trainee doctors. It was where they ate, drank, slept, were on call during the night, held banquets and crucially, entertained friends, quite often struggling artists, other students, mistresses and even prostitutes.^[193] It was regarded as the private territory of the interns, all male, and engendered riotous evenings and lewd and bawdy songs.^[194] The two most important banquets held by the *salle de garde* were at the beginning and end of the *concours* of the *internat*. After the initial written examination, the banquets held at the individual *salles de garde* were supplemented by the '*Bal de l'Internat*'. In the early 1880s this was held in the Latin Quarter of Paris, but later became an elaborate carnival, widely reported in both the medical and mainstream press.^[195] The *salle de garde* itself was often decorated by art students or painter-friends of the young interns, in exchange for a meal or access to cadavers to study anatomy.^[196]

Various apocryphal tales and legends connected to such decorative works were disseminated as part of the *internat* mythology.^[197] Fig.54. shows one of the

paintings at the Hopital Saint Antoine by Jean Moulin, 1910.^[198] Other artists to paint the *Salles* included Bellery-Desfontaines^[199], and Yves Alex and Marie Laurencin. Writing in 1922, André Warnod (1885-1960), recalled the painting *Embêtements de la vie* produced by Marie Laurencin and Yves Alix in 1913 for the Hôpital St.Louis.^[200] He also notes that Albert Marquet and Mme.Marval decorated a dressing room for interns at the hospital.^[201] Apollinaire's affair with Marie Laurencin was over by 1912, but there was still contact between them as a photograph from 1913 indicates.^[202] Both Marquet and Mme.Marval and their work were known to Apollinaire who had written about both in his art criticism and reviews of various *Salons*.^[203] This interaction between medical discourse and avant-garde artists would have been of interest to Apollinaire and his circle. It continued in the journals and periodicals of a medical nature that Apollinaire was interested in.

In 1910 *La Chronique Médicale*, founded and directed by Dr.Cabanès, included a review of the annual *Bal de L'internat* and reproduced some of the invitation cards that various artists were commissioned to make for the participating hospitals.[see fig.55] Each of the *salles de garde* had a themed procession, sometimes with a carnival 'float' that changed each year. In 1910 the Hôtel-Dieu, for example, had a theme and 'programme' notes that contained puns, of a venereal kind, both verbal and visual, with references to ultra violet rays, to 'les dents de la scie Philis' (the obvious syphilis reference) and veiled reference to the medical discovery of '606', the treatment for syphilis discovered in October 1909 (see chapter three of this thesis).^[204] The *Hôpital Tenon*'s theme for 1910 was 'Le Tabétique dans le Jardin des Supplices', using direct references to Mirbeau's novel *Le Jardin des Supplices*.^[205] *Aesculape*, No.11, Nov. 1911

also reports on the annual *Bal de l'Internat*. Barrère produced an illustration for the invitation cards showing a *cortège* of naked women wearing nothing but hats, stockings or feather boas. *Hôpital La Charité* and *Broussais* took the theme of '606', *L'Hôtel-Dieu* evoked 'la Pénétration pacific et antiyphique au Maroc.' which included another spoof on Mirbeau's *Les Jardin Supplices* with a 'chair of penetration of cutaneous skin', 'of 70 degree torture'.^[206] The outrageous, licentious and bawdy nature of the *internat cortèges* was addressed by André Warnod in a satirical account of 'Le Bal de L'Internat' in *Le Sourire*, No.43 26 Oct. 1911, which he also illustrated. The spirit of excess and frivolity that marked such occasions was part of a wider cultural attitude that was addressed by Warnod in his book *Bals, Cafés et Cabarets*, 1913 a copy of which Apollinaire owned.^[207] Apollinaire himself had visited the *salle de garde* of the Hôpital Sainte Anne in 1913, when he accompanied René Dalize and Dr Jean Vinchon there to take part in a dinner held by the *internat*. Vinchon states it was partly so Apollinaire could 'cherchait avec nous la solution du problème du génie dans la folie'.^[208] Vinchon was a psychiatrist at the hospital *Sainte Anne* and research for his later important publication *L'Art et la folie*, 1924, was almost certainly begun in the years that Apollinaire knew him.^[209] This has important ramifications for the development of Surrealism and Apollinaire's legacy for writer's such as André Breton. Such aspects of medical discourse and Apollinaire's interest in psychology is addressed in Chapter five of this thesis.

Apollinaire's interest in medico-scientific discourse, scientists and doctors can be seen as early as 1900 in his work when he ghosted part of a novel concerning a scientist- superman, and he made scientists and doctors his 'Antichrists' in *The Glory of the Olive* and *The Poet Assassinated and Other*

Stories.^[210] His interest in medical science seems at once both serious and iconoclastic. Certainly he drew attention to artists who were concerned with medical subjects. For example in 1912 Apollinaire singles out the work of Daniel Vierge (1851- 1904) Spanish painter-illustrator, for comment in his review of an exhibition that ‘includes an important ensemble of works by the blind illustrator Daniel Vierge, water-colours and precious documents[...]’.^[211]

The cross fertilisation of ideas and interests between artists and medical practitioners then is an undeniable feature of the particular socio-cultural milieu under investigation. This chapter has mainly focused on the relationship between avant-garde art and anatomical-surgical medical models. Chapter three below examines the legacy of physiognomy to fine art practice as it was articulated by avant-garde artists in the period.

Notes To Chapter Two.

[1] C. Benthien, *Skin. On The Cultural Border Between Self and the World.* trans. Dunlap, T. (New York: Columbia University Press, 2002.) p.43. Andreas Vesalius was the first anatomist to carry out the dissection of the cadaver himself. Until that point, medical instructional dissection was carried out by the demonstrator.

[2] It is no coincidence that Manet's infamous painting *Olympia* 1863, made art-historical reference to Titian's *Venus of Urbino* 1538. This ground breaking work served to place Manet at the forefront of what was later seen as the birth of Modernism in painting. In taking the Renaissance prototype of 'ideal body' and reworking it into a decidedly modern, Parisian and far from 'ideal' body type in his representation of the *petite fabourienne*, Manet irreverently took the Renaissance strategy of looking back to look forward and transposed it into a modern setting challenging both art-world conventions of representation and consumption of the female nude, as well as bourgeois socio-sexual mores. This painting is briefly discussed further, below in this chapter, and in chapter three of this thesis.

[3] Phillippe Comar, *The Human Body. Image and Emotion.* (Thames and Hudson, 1993.) p.30. The idea of the unity and order of the cosmos, symbolically represented by the unity of the human body is one that continued in some areas of thought well into the Seventeenth century, long after the "the great super-structure of Renaissance medical practice and theory-the world of interlocking metaphors of affinity and dissimilarity" had begun to crumble as Johnathan Sawday notes. J. Sawday, *The Body Emblazoned. Dissection and the human body in Renaissance Culture.* (Routledge, 1995.) p.230. It was particularly through the defence of the old intellectual order under the guise of Paracelsianism, "the fusion of chemistry, alchemy, Christian Neoplatonism and Hermeticism, based on the teachings of Philippus Aureolus Theophrastus Bombastus von Hohenheim, 'Paracelsus' or 'Greater than Celsus'." that this idea of the body as symbolic of the unity and order of the cosmos prevailed. Sawday, *ibid* p.232. Such ideas are also explored in Chapter 5 of this thesis with particular relation to key paintings by Marc Chagall.

[4] L. Choulant, *History and Bibliography of Anatomical Illustration.* trans. F. Mortimer (New York and London: Hafner Publishing, 1962.) p.106-108. (First published Leipzig: Rudolph Weigel, 1852.) It has been noted that Renaissance artists were 'the first genuine students of anatomy and were thoroughly aware of the skeletal framework of the human body. In an age when anatomy was not being taught in any systematic fashion the study of art supplied this impetus'. Jean Rousselot, *Medicine In Art. A cultural History.* (New York & London: McGraw-Hill Book Co. 1967.) p.128. The 'ideal' body type, or as Vitruvius called it the *homo bene figuratus*, set a standard to which artists referred for centuries. Leone Battista Alberti was instrumental in taking up these ideas, producing a 1450s manuscript that presented proportional human figures that

demonstrated the anthropometric ideal. See G. L. Hersey, *The Evolution of Allure: Sexual Selection From The Medici Venus to The Incredible Hulk*. (Cambridge, Massachusetts: MIT Press, 1996) p.50.

[5] Mark Antliff and Patricia Leighton, *Cubism and Culture*. (Thames and Hudson, 2001.) p.133. Their assertion was based on observations made by Irving Lavin, *Past-Present: Essays On Historicism In Art From Donatello To Picasso*. (Berkeley and Los Angeles 1993.)

[6] As Deanna Petherbridge notes, Leonardo's anatomical drawings established the relationships between human form and structural engineering principles. D. Petherbridge, *The Quick and The Dead: Artist and Anatomy*. (Hayward Gallery 1997.) p.48.

[7] E.L. Buchholz, *Leonardo da Vinci. Life and Work*. Könemann, Cologne 2000, p.70.

[8] See reproduction of this image in M. Kemp & M. Wallace, *Spectacular Bodies: The Art and Science of the Human Body from Leonardo to Now*. (Hayward Gallery, 2000.) p.23.

[9] Richardson ALP II, p.89

[10] Ludmilla Jordanova, *Sexual Visions. Images of Gender in Science and Medicine between the Eighteenth and Twentieth Centuries*. (New York and London: Harvester Wheatsheaf, 1989.) p.25.

[11] Ibid, p.28. Jordanova cites Barthez (1734-1806) a French physician who comments on women's 'delicate and feeble constitution' and yet also on their ability to live longer than men and endure more illness and infirmities. She also notes it was Dr Cabanis (1757-1808) medical philosopher, who helped extend this to the idea of the dependency of women.

[12] Ibid, p.44.

[13] Ibid, p.45. Jordanova notes that many of the faces of these models often recall Bernini's *Saint Theresa* with its ambiguous signification of both religious and sexual ecstasy.

[14] Ibid, p.67. Jordanova argues that Michelet used science and medicine to understand the female sex and describe the deep gulf between the masculine and the feminine. However, behind this lay his idea of uniting the sexes, a utopian vision which would cleanse French society. (Ibid, p.68.) Also the proliferation of images of the female nude in the annual salon exhibitions in Paris during the nineteenth century produced and sustained such ideological conceptions. Women and water, women and foliage, woman as nature were dominant themes at the salon. The gendered binary oppositions of man = culture, woman = nature,

male = active, female = passive are further reinforced in such cultural arenas as the Parisian art world of the late nineteenth and early twentieth centuries. Henri Gervex's painting *Une Séance de jury de peinture* clearly shows the male dominated painting jury and the 'darling of the salon' the female nude in the painting being voted on. Such masculine and feminine constructs placed woman as the embodiment of nature, passive, procreative, fecund and man as creator, active, and with social and cultural power. Similar tropes apply to medical discourse and the images of male and female bodies that arise from anatomical images and scenes of operations and surgery, as discussed below.

[15] Claude Bernard, *Introduction to the study of Experimental Medicine*, 1865, p.22, as quoted Jordanova, op.cit. p.75.

[16] Tamar Garb, *Bodies of Modernity: Figure and Flesh in Fin-de-Siècle France*. (Thames and Hudson, 1998.) p.191. Dr G-J.Witkowski was also a prolific writer and Apollinaire had no less than three of his works in his library; *Anecdotes médicales*. (Paris: E. Flammarion, no date); *L'Art chrétien, ses licences*, (Paris: Schemit,1912); *Les Drôleries médicales* (Paris: E. Flammarion, 1884.) Witkowski's texts contained humorous anecdotes, poems, songs and so on. This apparently strange fusion of art, medicine and curiosities, both humorous and serious, obviously appealed to Apollinaire since the range of similar medical texts and journals in his collection was quite marked. See Boudar,G and Décaudin, M (eds) *Catalogue de la Bibliothèque De Guillaume Apollinaire*.(Paris: Editions du CNRS, 1983.) vol. 1.(Books) and vol.2, 1987, (Periodicals). Witkowski also appears in *La France Médicale* Vol.182, Jan.1905, a copy owned by Apollinaire, in a critical review by Paul Delauney of Witkowski's *Les Médecines Au Théâtre du L'Antiquité au XVII siècle* and *Histoire de la Pharmacie à Avignon*, both produced in 1905.

[17] Of course the representation of pubic hair on the female nude was taboo in art works of the nineteenth and even early twentieth century made for a public audience. It did not conform to conventional, standard modes of display for the female nude as 'ideal body' and 'ideal beauty'--a generic,depersonalized construct of femininity that was decidedly patriarchal and catered exclusively for the male, heterosexual gaze. The presence of pubic hair on the female nude, in art works up until the early twentieth century signified as either erotica/pornographic material or medico-scientific representation. See for example the image of a pregnant female in the medical atlas by Dr Galtier-Boissière, *La Femme*, Paris 1905, as reproduced in Anthea Callen, *The Spectacular Body. Science, Method and Meaning in the Work of Degas*, (New Haven & London: Yale University Press, 1995.) p.86, plate 62. As late as 1917 Berthe Weill's exhibition of Modigliani's paintings was forcibly closed by police, apparently because of the paintings of female nudes in the window, one of which displayed pubic hair. See Carol Mann, *Modigliani*. (Thames and Hudson, 1980, reprinted 1993.) p.148.

[18] Briefly discussed in Frascina, Blake,et al *Modernity and Modernism. French Painting in the Nineteenth Century*. (New haven & London: Yale University Press in association with the Open University, 1993.) p. 276.

[19] This is not to say that the artists were *consciously* aware of such symbolic devices, but the material evidence of the works themselves and the potent sexuality that they signify seems to justify the possibility of such a reading.

[20] Jordanova, *op.cit.* p.90. It is also apparent from later avant-garde works such as Duchamp's *Etant donnés ; 1.la chute d'eau, 2.le gaz d'éclairage*. 1946-66 and its attendant preparatory sketches and works, that the sexual pervasiveness of revealing body parts in a partially concealed way; inviting the scopophilic look, engaging with the process of voyeurism, fetishism and objectification of the female body, is something that continues through art-historical discourse well into (and arguably beyond) the twentieth century. The strange cropped torso with the focus on the peculiarly abstracted sexual parts in Duchamp's image recall both the wax anatomical works (the surface of the fragmented body in Duchamp's work is decidedly wax-like in appearance, this adds to the sense of this signifying as dead flesh, a cadaver more than the cropped torso of a live body) of the Seventeenth and Eighteenth century, as well as the medical atlases mentioned above. It is also engaging with erotic and pornographic imagery in the representation of the female as mere sum of her sexual parts, decapitated and depersonalised by the framing of the work. Although strictly speaking this work lies outside of the temporal framework of this thesis, it is worth noting how such medical iconography pervades art practices throughout the twentieth century. For further reading on Post-modern artists and their engagement with anatomy see Kemp & Wallace, *op.cit.*

[21] Benthien, *op.cit.* p.43.

[22] Londa Schiebinger notes that the frontispiece to Vesalius's 1543 *De corporis humani fabrica* in fact depicts a woman being dissected. See L.Schiebinger, 'Skeletons in the closet: The First Illustrations of the Female Skeleton in Eighteenth Century Anatomy' in C. Gallagher and T. Laquer, *The Making of The Modern Body. Sexuality and Society in the Nineteenth Century*. (Berkeley, Los Angeles, and London: University of California Press, 1987.) p.49.

[23] Jordanova, *op.cit.* p.98.

[24] For example Odilon Redon's *La squelette*, (1890), and his frontispiece for *Ténèbres* by Iwan Gilkin (1892), depicting the 'black angel' of death, satanic excess and suicide in Gilkin's poem *Thought* from the book: see M. Bascou, T.Gott, et al, *Paris In The Late 19th Century*. (Paris and Canberra: Musée D'Orsay & The National Gallery of Australia,1996.) p.124. Also Richard Tennant Cooper's *Syphilis*, Paris (1910) and *Cancer* (1912). Cooper, (1885-1957) trained as an artist in Paris in the pre 1st World War period, and was commissioned by Sir Henry Wellcome between 1909 and 1911 to paint various works relating to the subjects of disease such as cholera, diphtheria, tuberculosis, syphilis and so on. They formed an integral part of Sir Henry Wellcome's first 'Historical Medical Museum' exhibited at 54a Wigmore Street London in 1913. See William Schupbach, *The Iconographic Collections of the Wellcome Institute for the History of Medicine*. (The Wellcome Institute for the History of Medicine, 1989.) p.13.

[25] Anthea Callen, 'The Body and Difference: Anatomy training at the Ecole des Beaux Arts in Paris in the later nineteenth century', in *Art History* Vol.20, No.1, March 1997, p.23.

[26] Ibid, p.31. However, Callen notes that both Duval and later directors of anatomy at the Ecole des Beaux-Arts did continue to employ an anatomy demonstrator at least until 1914.

[27] Ibid. Also see Jean-François Debord, 'De L'anatomie artistique à la morphologie' in Jean Clair, *L'âme au corps. Arts et Sciences 1793-1993*. (Paris: Réunion des Musées Nationaux, Gallimard, 1993.) p.107.

[28] For identity of all the figures in Brouillet's painting, see *La Leçon De Charcot. Voyage dans une toile*. (Paris: Musée de l'Assistance Publique de Paris, 1986.) p.4. No author cited, exhibition catalogue.

[29] Callen op.cit. p.45.

[30] Ibid. Paul Broca (1824-80) is characteristic of anthropologists who used measurement of skulls and bones in comparative analyses of different racial taxonomies. See chapter three for further discussion.

[31] Ibid, p.47.

[32] Ibid, p.52.

[33] See Hilary Spurling, *The Unknown Matisse. A life of Henri Matisse. Volume One 1869-1908*. (Hamish Hamilton, 1998.) pp.212 & 398.

[34] Neil Cox, *La Morale Des Lignes: Picasso 1907-1910; Modernist Reception; the Subversion of Content; and the Lesson of Caricature*. University of Essex, 1991, p.262. (Unpublished PhD thesis.) Neil Cox's thesis examines, in a detailed and scholarly account, the shift in Picasso's art practice from 1907 to 1910, contextualising the emergence of *Les Femmes d'Alger*, 1907, in contemporary theoretical discussions and examines the impact of Matisse's art theories in conjunction with an analysis of the work of André Rouveyre. Cox notes on p.263 that 'certainly by 1912 the two [Rouveyre and Matisse] were acquainted'. In fact Spurling has indicated that they were friends earlier than this since both were in Gustave Moreau's class at the Beaux-Arts sometime between 1892-1895. See Spurling, op.cit. Cox also indicates that Picasso would perhaps only have been interested in Rouveyre's work via his interest in Matisse, (p.263) However, Apollinaire's interest in aesthetic theories and acquaintance with Golberg from as early as 1904, and his later friendship with Rouveyre meant that such ideas were more widely disseminated in that group of avant-garde artists, poets and writers.

[35] Ibid, p.266.

[36] Ibid, p.267.

[37] ibid.

[38] Patricia Leighton has noted that by Autumn 1904, Picasso, Max Jacob, André Salmon and Apollinaire were attending various soirées of the older Symbolists, including gatherings sponsored by the journals *La Plume* and *Vers et Prose*. Here they met “Alfred Jarry, Paul Fort, Fénéon, Tailhade, Kahn, Verhaeren, Merrill, Signac, Sérusier, Jean Moréas, Charles Morice, and a host of lesser figures including socialist poet and journalist Alexandre Mercereau and anarchist Mécislas Golberg, who about that time was writing *La Morale des lignes*.” P. Leighton, *Re-Ordering The Universe. Picasso and Anarchism 1897-1914*. (Princeton, New Jersey: Princeton University Press, 1989.) p.52 . Both Jarry and Golberg contributed to Apollinaire and Salmon’s review *Le Festin d’Esopé, Revue des belles lettres*, started in November 1903 and published in nine issues until August 1904. A combination of politics and art, the review contained poems and stories by Apollinaire, poems by Jarry and Salmon and included an article by Golberg entitled ‘Lettre à Alexis sur la Passivité’. (Ibid,p.54). The idea of being an outsider was something both Jarry and Apollinaire would identify with, and as Cox notes, had a certain nobility in that period, and was a characteristic ‘inversion’ of Bohemia,(Cox, op.cit, p.270) a legacy perhaps of Baudelaire’s ‘heroes’ of modern life.

[39] Cox, op.cit. p.273.

[40] Ibid, p.278.

[41] For more detailed discussion of the Nietzschean inspiration of Golberg’s aesthetics see Cox, op.cit, p.275 & p.287, and David Cottington, *Cubism and the Politics of Culture in France 1905-1914*. Courtauld Institute, London, 1985. Unpublished PhD Thesis.

[42] In a preface to Jean Rousselot’s *Medicine in Art. A Cultural History*. (op.cit) Louis Pasteur Vallery-Radot of the Académie Française states, ‘sick people, degenerates, lunatics, even corpses-and more generally, all aspects of medicine and surgery, can become ‘objects of beauty’’. Indeed many post-modern art practices focus on what may be considered ‘ugly’ to wrest from the subject a sense of beauty. See for example recent exhibitions including *Spectacular Bodies* Hayward Gallery, 2000. (Kemp & Wallace, op.cit)

[43] Spurling, op.cit. p.398.

[44] Cox, op.cit. p.280.

[45] Cox, op.cit, p.264, notes that rather than just the usual sources cited as informing Matisse’s theories (Bergson and Croce), Golberg’s ideas are a more likely source. Indeed, it has been suggested by Rouveyre himself that Golberg was in fact the author of Matisse’s *Notes of a Painter*. This was, however, a garbled version of events given by Rouveyre just before he died aged 84 in 1962.

See Spurling, *op.cit.* note 84, p.462. Never the less, some sense of the symbiotic climate of shared values and ideas is suggested by Rouveyre's confusion.

[46] Cox, *op.cit.* p.281.

[47] *Ibid.*, pp.281& 282.

[48] *Ibid.*, p.282.

[49] M.Golberg, *La Morale Des Lignes.* (Paris: Librairie Léon Vanier, 1908.) p.16. Neil Cox makes a slight error in his note concerning the reference to M.Bertillon, (Cox, *op.cit.*, p.317, note 107.) when he attributes Golberg's reference to Bertillon as being to Jacques Bertillon, the statistician and sociologist. Jacques was Alphonse Bertillon's brother, but the anthropometric reference in Golberg's text undoubtedly indicates it is Alphonse to whom he is referring.

[50] Golberg, *Ibid.* p.17, my translation of original French text. 'Si M.Bertillon cherchait la réalité absolue, il reconstruirait 'l'individu' par un schéma simple, par deux lignes, par une série simple des fonctionnelles.'

[51] *Ibid.* my translation of original French text. 'Parfois une bohémienne visionnaire reconstruit mieux 'la personnalité' que toute la science anthropométrique de M.Bertillon.'

[52] Cox, *op.cit.*, p.284.

[53] *Ibid.*

[54] Neil Cox's thesis usefully includes a full English translation of the original French text by de Gourmont, I will be using his translation here. (see Cox,*op.cit.*, Appendix B, p.387)

[55] Remy De Gourmont, 'Glose' from Rouveyre, A. *Le Gynécée.* (Paris: Mercure de France, 1909.) p.5 &6: as quoted and translated Cox, *op.cit.* p. 389 & 390.

[56] Cox, *op.cit.* p.295.

[57] *Ibid.* p.301.

[58] See Richer's works in *La Nouvelle Iconographique de la Salpêtrière.* Paris, 1889, and *Morphologie: la femme.* Paris,1915 (although photographs for this go back to 1900). For an interesting discussion on the symbolism of hair see Marina Warner, 'The Language of Hair' in *From The Beast To The Blonde. On Fairy Tales and Their Tellers.* (Vintage, 1995.) pp 353-386.

[59] De Gourmont, 'Glose' *op.cit.*, p.1.

[60] Indeed Golberg specifically mentions Dr Richer in *La Morale Des Lignes*, p.20, op.cit. discussing the muscular expressions, following on from a reference to Duchenne de Boulogne on p.19 of *La Morale Des Lignes*. Golberg also cites Charcot, p.15 and it is not implausible that he would have been aware of the images of their diverse work. Many of Rouveyre's 'caracatures' of the famous and infamous of Parisian life included well known scientists, doctors or socio-scientific thinkers. For example in his *Visages des Contemporains 1908-1913*. (Paris: Mercure de France, 1913.) the following drawings appear; Dr.Doyen; Prof. Raphael Blanchard; Max Nordau; Dr Charles Richet; Madame Pierre Curie; Jesus-Christ Mardrus; Henri Bergson; Henri Poincaré, amongst others, and in *Dessins de Rouveyre 1906-1907. Carcasses Divines*. (Paris: Mercure de France, 1909.) Henri Bergson and Dr Elie Metchnikoff also appear. Charles Richet also promoted anthropometrics and was Professor at the Beaux-Arts in Paris.

[61] Of course this is not without precedent. Leonardo da Vinci's geometricized 'ideal' of human proportion was sublimated in his drawings of grotesques. In fact Comte Robert de Montesquiou linked Rouveyre's work with that of caricature and in particular Leonardo da Vinci whose interpretation of the subject was likened to 'caricature', but along the Baudelarian lines of thinking of caricaturists as artists in their own right. See Cox op.cit p.321-322. Caricature in the work of Picasso and others is discussed in terms of its connection to medical discourse and physiognomy in Chapter 3 of this thesis. Rouveyre's father, Edouard, a bibliophile and leading Leonardo da Vinci scholar, had produced a French catalogue of the Windsor da Vinci drawings. see Cox, op.cit p.323. In fact Edouard Rouveyre embarked on an ambitious venture to publish all the hitherto unpublished drawings of Leonardo. Those included the Windsor drawings (Rouveyre, Paris 1901, 22 plates), those at the British Museum (planned as 15 volumes with 750 facsimiles but only 4 volumes with 100 facsimiles appeared; Rouveyre, Paris 1901) and at South Kensington (3 volumes, Paris: Rouveyre, 1901). Apollinaire owned a copy of Edouard Rouveyre's *Connaissances nécessaires à un bibliophile*, Paris: Rouveyre, 1879.

[62] Cox, op.cit.p.301.

[63] See Leighton, 1989, op.cit.

[64] Rouveyre and Apollinaire also collaborated on a publication of poetry and drawings in 1917, *Vitam Impendere Amori*. (Paris: Mercure de France, 1917.)

[65] Cox, op.cit.p.302 & p.303. Of interest in this context is another edition of the satirical periodical *L'Assiette Au Beurre*, No.88, 6 Dec.1902, devoted to 'Beasts and People'. The cover by Benjamin Rabier, shows a man, sitting by a pig, who are both represented as morphologically similar. The pig also wears identical clothing to that of the man. The issue is filled with similar pictorial puns and possible allusions to the H.G.Wells' *Island of Dr Moreau* beast-folk.(see discussion below.)

[66] Ibid, p.304.

[67] Matisse was also a student of Bouguereau at the Académie Julian in 1888 while he was studying law in Paris. See A. Barr, *Matisse: His Art and His Public*. (New York: Museum of Modern Art, 1966.) p.36. The sort of aesthetic that Bouguereau represented was something that many artists wanted to avoid. For artists such as Pissarro and Cézanne, Bouguereau's paintings represented a bourgeois way of 'seeing' and representing. Matisse's move away from such modes of representation could be seen as an anti-academic stance in this way. Equally Rouveyre's work was set against such styles that were seen as closer to the more conservative practices of the art establishment such as Bouguereau's, by some of his supporters. For example Cox cites Louis Thomas writing on Rouveyre in 1912, in which he articulates the idea that 'Rouveyre is not understood by those who prefer drawing à la Bouguereau and nudes without passion.' Cox, op.cit. p.298.

[68] De Gourmont, op.cit p.4 & 5.

[69] R. Montesquiou, 'Préface' Rouveyre, A. *La Comédie Française de Rouveyre* Paris, 1906, p.30, as cited Cox, op.cit., p.323.

[70] Following the success of *The Time Machine*, published in the previous year, and other short stories (such as *The Stolen Bacillus* 1895) and later novels such as *The Invisible Man* 1897, *The War Of The Worlds* 1898 and *The First Men In The Moon* 1901, Wells's name and his work was known throughout Europe. Indeed Apollinaire owned a French translation of the latter text.

[71] H.G.Wells, *The Island Of Doctor Moreau*. (Everyman, 1999.) p.40

[72] Cox, op.cit. (de Gourmont, 'Glose')

[73] Wells, op.cit.p.68

[74] Wells, chapter 21 'The Reversion of The Beast Folk', op.cit. p.116.

[75] The narrator, Prendick is appalled to note the female's disregard for 'the injunctions of decency' and their attempts at 'public outrages upon the institution of monogamy'. See Wells, op.cit. p.121. Earlier he talks of the female 'monstrosities' as 'so strangely distorted as to resemble nothing but the denizens of our wildest dreams.' *ibid*, p.87.

[76] Rémy de Gourmont, associate of Villiers de l'Isle Adam, Huysmans and Mallarmé and contributor to several Symbolist literary journals, wrote, in 1893, that the battle against the Naturalists had been won, but it was necessary to put the wounded out of their misery lest they revive and return to the fray. (In his Preface to *L'Idealisme* march 1893, cited in C. Harrison, P. Wood, and J. Gaiger, *Art In Theory. 1815-1900*. (Oxford: Blackwell, 1998.) p.869). In 'L'Art libre et l'esthétique individuelle', published in de Gourmont's *Chemin de Velours*, (Paris: Mécure de France, 1902.) he states that 'Since Art is free, within the limits of its own organism, there must also be a free aesthetic, an individual and

personal aesthetic, the right to judge according to individual and personal rules, despising all patterns, patrons and paragons.' cited Harrison, et al, *ibid.* p.871. Such sentiments appear to inform his ideas concerning Rouveyre's later work, as articulated in his 'Glose' to *Le Gynécée*.

[77] Wells, quoted in Jon Turney, *Frankenstein's Footsteps. Science, Genetics and Popular Culture*. (New Haven and London: Yale University Press, 1998.) p.55. This has also been noted by Kelly Hurley in *The Gothic Body. Sexuality, Materialism and Degeneration at the Fin-de Siècle*. Cambridge University Press, 1996, p.18. For a more literary evaluation of the novel, in relation to Impressionism, see Michael Fried, 'Impressionist Monsters: H.G.Wells's 'The Island of Dr Moreau'' in Stephen Bann, (ed) *Frankenstein, Creation and Monstrosity*. (Reaktion Books, 1994.)

[78] Marine Robert-Sterkendries, and Pierre Julien *Posters Of Health*. (Brussels: Therabel, 1996.) p.371. Of course Paris also had its Morgue, open to the public until 1907, and a feature of many travel guides to Paris including Thomas Cook's Paris tour guide. The Morgue was built in 1864 on the quai de l'Archevêché behind Notre Dame cathedral and was a popular attraction for Parisians as well as tourists; see V.Schwartz, 'Cinematic Spectatorship before the Apparatus: The Public Taste for Reality in Fin-de Siècle Paris' in L.Charney, & V.Schwartz, (eds) *Cinema and The Invention of Modern Life*. (Berkely, Los Angeles & London: University of California Press, 1995.) p. 298.

[79] Bernard, quoted in Turney, *op.cit.*, p.58. A portrait by L. Hermitte of Claude Bernard dissecting a rabbit appears in the publication *Album Gonnon. Iconographie Médicale. 1895-1908*. (Lyon: L'Agenda Gonnon, 1909.) no author. Such medical portraits were exhibited in various annual salons and often reported in the newspapers of the day.

[80] Turney, *op.cit.* p.48.

[81] See note 135, Chapter 3 of this thesis.

[82] Turney, *op.cit.* p.50.

[83] There is also a connection with popular culture and the image of flaying and anatomy. In an edition of the satirical journal *L'Assiette au Beurre* entitled 'Les Peaux Humaines', No.561, 13th Jan. 1912, an illustration appears in a modern parody of the more classical iconography of the flayed figure, [see Fig 56]. It is also reminiscent of Rembrandt's *The Slaughtered Ox*, 1655, Musée de Louvre, Paris, and Rouveyre's images in *Le Gynécée*, [see for example fig.41].

[84] de Gourmont, 'Glose', cited Cox, *op.cit.*, p.388.

[85] Cox, *op.cit.* p.298.

[86] Chapter Three, Cox, *op.cit.* p.122. Apolliniare had also written an

introduction to *L'Oeuvre du Marquis de Sade* (1909) in which he had utilised the publications of Drs. Eugène Duehren, Cabanès and Jacobus X (*sic*).

[87] Leighten, *op.cit.* p.54.

[88] *Ibid*, p.52. Mirbeau was also known to André Salmon. Salmon described Mirbeau as 'ancien anarchiste par la bande, collaborateur des braves, petits journaux à 'deux rondes', du Père Peinard à l'En-dehors..., chaque époque ayant ses convulsionnaires, Octave Mirbeau était aimé pour ses idées généreuses', as cited Leighten, *op.cit.*, note 106, p.164.

[89] See Leighten, *op.cit.* and Cox, *op.cit.* amongst others.

[90] Brian Stableford, Introduction to Octave Mirbeau, *Torture Garden*, trans. M. Richardson, (Cambridge: Dedalus, 1997.) p.8. The original French text was published as *Le jardin des Supplices*. (Paris: Bibliothèque-Charpentier, 1899).

[91] *Ibid*, p.9.

[92] Villiers de l'Isle Adam's later work *L'Eve Future*, 1886, provided an up to date modern metaphor for the masculine disgust of the untrustworthy and deceitful nature of women. In *L'Eve Future*, a nobleman commissions Thomas Edison to create a beautiful machine embodying the virtues of fidelity and love, of which women in general were considered incapable. See *ibid*, p.9. Also discussion below in 2.3 concerning monstrous creations.

[93] Stableford, *op.cit.* p.9.

[94] *Ibid*, p.13.

[95] '[...]the most atrocious crimes are almost always the work of woman... She is the one who conceives, schemes, prepares them. She is the driving force behind them. If she does not execute them with her own hands, which are often too weak, you'll find them in her moral presence, her thought and her sex in all their ferocious character.' Watch out for women!' said the knowledgeable criminologist... Mirbeau, *op.cit.* p.32. The veiled reference to Lombroso and his *La Donna Delinquente* (see chapter three of this thesis for more detail on Lombroso's ideas) sets up the pervasive misogynist tone of the book. Whether it was intended to be read as satire or ironically isn't clear, the overriding signification however situates woman in the misogynist milieu of late nineteenth century French socio-cultural paradigms.

[96] A gruesome reminder that women are tortured in the garden of tortures as well as men comes in the dialogue in Mirbeau, *op.cit.*, p.151, between Clara and the torture master who states 'I turned a woman into a man... it was so life like it could have fooled even me! Tomorrow, if it pleases the genies to offer me a woman on the gibbet, then I'll turn her into a man...' An illustration for the 1902 edition of Mirbeau's book by Rodin graphically reproduces this grisly image. See Fig.57. This also recalls de Gourmont's pronouncements on the women in *Le*

Gynécée becoming masculinized and ‘hermaphrodites’, see p.73 and note 84 of this thesis.

[97] For example on p.199 of Mirbeau op.cit: ‘In the intoxication of dream, debauchery, torture and crime, it seemed that all these mouths, all these breasts, and all this living flesh was about to hurl itself on Clara[...]’ and p.202: ‘There was a demented clamour around the Idol, a madness of wild sensuality, a mingling of bodies, conjoined with each other in such a frenetic grip that the scene assumed the wild appearance of a massacre[...]’ and finally Clara herself in an hysteric ‘crisis’ is described thus; ‘In her last convulsion her body was arched from her heels to her neck. Her taught skin vibrated.’ Ibid, p.203.

[98] See David Weir, *Decadence and the Making of Modernism*. (Amherst: University of Massachusetts Press, 1995.) p.155. Weir discusses Mirbeau’s text in some detail with reference to the decline of decadence in literature. In particular he notes the exhaustive descriptive passages in Mirbeau’s text concerning the strange flowers in the Garden of Tortures. The signification is of both sex and death, Eros and Thanatos, themes with which the early twentieth century avant-garde often engaged. Picasso’s *Les Demoiselles d’Avignon* is an obvious example and the connection has been made by many authors including William Rubin, *Les Demoiselles d’Avignon. Studies in Modern Art*. (New York: Museum of Modern Art, 1994.). In Mirbeau’s text Clara declares that the flowers are not a creation of some sick soul, but are natural, and that nature loves death. (Mirbeau, op.cit., p.168) But the narrator responds that ‘Nature also creates monsters!’ Clara replies that ‘what you call monsters are superior forms, or simply beyond your understanding.[...] Isn’t a man of genius a monster, like a tiger or a spider, like all individuals who live beyond social lies, in the dazzling and divine immortality of things?’ (Mirbeau, ibid). David Weir sees this as symbolic of the Nietzschean *Übermensch*, Weir, ibid, p.161. The dualism of the novel, of presenting an idea that the hypocrisies of civilisation are necessary to the survival of society, is seen by Weir to anticipate Freud’s idea presented some thirty years later that repression, whilst making the human condition more miserable, ‘has the beneficial effect of allowing us to live.’ Weir, ibid, p.163. It is also something that Weir sees as being ‘eventually complicated to the point that whatever satire Mirbeau may have intended is severely compromised.’ (ibid). Rouveyre’s images and de Gourmont’s text for *Le Gynécée* appear to share some common ground with Mirbeau’s Symbolist/anarchist sympathies and socio-cultural dualism, and equally if there is irony or satire in either the text or images of *Le Gynécée*, it becomes sublimated by the excessive gendered language and quantity of Rouveyre’s drawings of tortured/distorted female bodies.

[99] Various authors have cited such connections, including Arthur Miller, *Insights of Genius: Imagery and Creativity in Science and Art*. (New York: Springer-Verlag, 1996.) p.423; Michel Frizot, *Avant le cinématographie: La Chronophotographie (Temps, photographie et mouvement autour de E.-J. Marey.)* exhibition catalogue, (Beaune: La Chapelle de l’Oratoire, 1984.); Linda Dalrymple Henderson links chronophotography and Duchamp with the fourth dimension in *Duchamp In Context. Science and Technology In The Large Glass*

and Related Works. (Princeton, New Jersey: Princeton University Press, 1998.) and in her earlier work, *The Fourth-Dimension and Non Euclidean Geometry In Modern Art*. (Princeton, New Jersey: Princeton University Press, 1983.); John Golding first connected the image from Richer's book with Duchamp's painting in J. Golding, *Marcel Duchamp: The Bride Stripped Bare by Her Bachelors, Even*. (New York, 1973.) p.22.

[100] As cited by Dalrymple-Henderson, Duchamp stated to Pierre Cabanne in 1967 that 'There is no flesh, only a simplified anatomy, the up and down, the arms and legs'. p.331 in L.Dalrymple-Henderson, 'X.Rays and the Quest for Invisible Reality in the Art of Kupka, Duchamp, and the Cubists'. *Art Journal*, Winter 1988, pp.323-340. In 1947 Duchamp confirmed to James Johnson Sweeney that he had thought of using a skeleton, even though he ultimately chose to represent the morphology of movement and body through more linear geometric forms. However, Dalrymple-Henderson argues that even in its final form Duchamp's *Nude Descending A Staircase* still bears a resemblance to a full body X-ray of the human skeleton. See *ibid*, p.331. According to a more recent, highly detailed, biography of Duchamp by Calvin Tomkins it was Marey's photographs in *La Nature* and *L'Illustration* that gave him the idea of bringing movement into painting. See C. Tomkins, *Duchamp. A Biography*. (Pimlico, 1996.) p.78.

[101] L. Cartwright, *Screening The Body. Tracing Medicine's Visual Culture*. (Minneapolis & London: University of Minnesota Press, 1995 & 1997.) p.9. Cartwright is discussing the ideas put forward by Jacob Opper in *Science and The Arts : A Study of Relationships From 1600-1900*. (Rutherford, New Jersey: Fairleigh Dickinson University Press, 1973).

[102] *ibid*.

[103] M.Foucault, *The Order Of Things: An Archeology Of The Human Sciences*. (New York: Vintage Books,1973.) p.239-240.

[104] See Cartwright *op.cit*, p.11, for further discussion.

[105] Auguste Lumière, 'patriarch of the cinema' was also deeply committed to medical biology and experimental physiology. Indeed, after 1900 Lumière's work was focused on medical research and production. In addition to the manufacture of products for mass-audience cinema, the Lumière laboratory also supplied specialised cameras and film for medico-scientific laboratories. See *ibid* p.1 & 2.

[106] *Ibid*.p.11.

[107] In 1907 Henry Meige, writing on Richer's pioneering work, commented upon the two conceptions of anatomy. The classic anatomy found in the study of static cadavers which involved dissection and the other, dynamic anatomy found in the observation of the physiognomy of live forms. He states that the art of dissection is geometric. This has implications for critical reception of Cubism,

see discussion in this chapter below. Henry Meige, 'Une Révolution Anatomique' in *La Nouvelle Iconographie de la Salpêtrière*, XX, No.1 Janv-Fév. 1907. p.107, as cited Pascal Rousseau, 'Le Portrait D'Apollinaire Par Robert Delaunay. La Dissection Cubiste Et L'Esthétique de La Fragmentation.' in *Guillaume Apollinaire. La Revue Des Lettres Modernes*. No.21, 2001, p.32 and note 16.

[108] M. Rowell, 'Kupka, Duchamp and Marey' *Studio International* vol.189. no.923, Jan/Feb 1975. p.49, (also cited, Adrian Hicken, *Simultanisme and Surnaturalisme: Chagall, De Chirico, Apollinaire and Cubist Paris. 1910-1914*. Unpublished PhD thesis, The University of London, Courtauld Institute of Art, 1987. note 38, chapter one)

[109] *Ibid*, p.48.

[110] *Ibid*, p.49. Rowell also quotes Duchamp on the final version of *Nude Descending A Staircase* 1912, 'This[...] was the convergence in my mind of various interests, among them the cinema, still in its infancy, and the separation of static positions in the photochronographs of Marey in France, Eakins and Muybridge in America.' taken from D'Harnocourt and McShine (eds) *Marcel Duchamp*. (New York: The Museum of Modern Art, 1973.) p.258.

[111] Tomkins, *op.cit.* p.76. This was from an interview between Duchamp and the author. It should be noted that Tomkins, an art journalist, met Duchamp in the 1960s and considered him a friend as well as a subject for numerous articles and interviews. Tomkins also acknowledges extensive assistance and input from key Duchamp scholars including Anne d'Harnocourt, director of Philadelphia Museum of Modern Art, Francis M.Naumann and Arturo Schwartz in the compilation of this extensive and detailed biography.

[112] Although Duchamp has claimed that his aim was a "static representation of movement" and he was 'closer to the Cubists' interest in decomposing forms than to the futurists' interest in suggesting movement, or even Delaunay's Simultaneist suggestions of it." Duchamp quoted in extract from interview with James Johnson Sweeney 'Eleven Europeans In America' *Bulletin of the Museum of Modern Art*, New York, XIII, No 4-5, 1946, as reproduced in Herschel B. Chipp, *Theories of Modern Art. A Source Book by Artists and critics*. (Berkeley, Los Angeles & London: University of California Press, 1968.) p.393. It is clear that the representation of movement through space, with the outcome of seeing simultaneously the body in the past and present does in fact correspond to some of the discussions concerning Simultaneity that were being made in relation to works such as those by Delaunay. Simultaneity as an aspect of Cubism has been addressed by a wide range of authors including, Hicken, 2002 & 1987; Cottingham, 1998; Dalrymple-Henderson, 1983; Spate, 1979 and Golding, 1959, (revised 1988).

[113] Camfield has noted the discrepancies in the exact date they met. See W. Camfield, *Francis Picabia: His Art, Life and Times*. (Princeton, New Jersey: Princeton University Press, 1979.) p.21.

[114] Chipp, op.cit. p.394.

[115] Henderson, 1998, op.cit, pp.34 & 36 briefly mentions Villiers's novel in connection to Duchamp's work. Mary Ann Doane 'Technophilia: Technology, Representation, and the Feminine' in M. Jacobus et al, *Body Politics. Women and The Discourse of Science*. (Routledge, 1990.) pp.163-166, discusses Villier's novel as does Jordanova, op.cit., p.121.

[116] T.Gunning, 'Tracing the Individual body: Photography, Detectives, and Early Cinema.' in Charney & Schwartz, op.cit. p.37.

[117] ibid.

[118] ibid, p.38

[119] ibid, p.39.

[120] ibid, p.38 and note 57, pp.44-45.

[121] Henderson, 1998, op.cit. p.34.

[122] Turney, op.cit. p.15.

[123] Henderson, 1998, op.cit. p.34.

[124] Henderson, ibid, p.33-34 and p.94 . Henderson also cites certain Symbolist writer's anthropomorphic descriptions of automobiles such as Octave Mirbeau's *La 628-E8* of 1907.

[125] Quote taken from Villiers de L'Isle Adam *L'Eve Future*, as cited by Mary Ann Doane 'Technophilia: Technology, Representation and The Feminine' in M. Jacobus, et al., op.cit., p.165.

[126] Henderson 1998, op.cit. p.96

[127] Turney, op.cit. p.15

[128] K. Silver, *Esprit de Corps. The Art of the Parisian Avant-Garde and the First World War. 1914-1925*. (Thames and Hudson, 1989.) p.4.

[129] Silver ibid, p.228, quotes from Amédée Ozenfant (1886-1966) and Charles-Edouard Jeanneret (Le Corbusier)(1887-1965) writing in *Après Le Cubisme* , Paris, 1918, p.11; 'Art before the Great Test [la Grande Epreuve] was not alive enough to invigorate the idle, nor to interest the vigorous; society was restless, because the direction of life was too uncertain, because there was no great collective current to force to work those who had to work nor to tempt to work those who did not have to.'

[130] Ibid and D.Batchelor, et al, *Realism, Rationalism Surrealism. Art Between The Wars.* (New Haven and London: Yale University Press in ass. with The Open University, 1993) p.61.

[131] Silver, op.cit. p.122. Apollinaire wrote that *Parade* was “the point of departure of a series of manifestations of the Esprit nouveau which will not fail to seduce the elite and which promises to transform arts and manners in universal exhilaration.”

[132] K. Silver, ‘Purism:straightening up after the Great War’ in *Artforum* Vol.XV, No.7, March (1977) p.57.

[133] ‘...the new spirit, which has the ambition of manifesting a universal spirit and which does not intend to limit its activity, is none the less,[...] a particular and lyric expression of the French nation, just as the classic spirit is, *par excellence*, a sublime expression of the same nation.[...]it is perhaps more dangerous for a nation to [...]be conquered intellectually than by arms. That is why the new spirit asserts above all an order and a duty which are the great classic qualities manifested by French genius; and to them it adds liberty. This liberty and this order, which combine in the new spirit, are its characteristic and its strength.’ from ‘L’Esprit Nouveau et les Poètes.’ (Paris: *Mercur de France* 1918.), extract in English translation from Harrison and Wood, *Art In Theory.1900-1990. An Anthology of Changing Ideas.* (Oxford: Blackwell, 1992) p.226.

[134] Charles-Edouard Jeanneret and Amédée Ozenfant ‘Purism’ in *L’Esprit Nouveau* No.4, 1920, extract reprinted in English translation Harrison and Wood, *ibid.* p.240.

[135] Such reconstruction programmes were also extended to include *Mutilés de Guerre*, advances in procedures for plastic surgery were commented upon in 1917; ‘the war, with all its mutilations and deformations, has favoured the development of what one might call aesthetic surgery...nothing has become more common than a glass eye neatly placed or...a hideous scar cleverly masked’. from Anon. ‘L’Art de restaurer les visages’ *La Renaissance* 5, No.6, 17 March 1917, pp15-16, as quoted Silver, 1989, op.cit. p.188 and note 3, page 439.

[136] Jeanneret and Ozenfant, ‘Purism’, op.cit. p.238

[137] *Ibid.*, p.239.

[138] Dada was a notoriously diverse range of activities and artists, covering both a widespread literary and artistic range as well as geographical area. There was no single shared aim or interest as such, but an attitude which can be loosely thought of as anti-rational, anti-establishment and, in some forms of Dada, a destructive impetus. Those artists and their activities that professed a Dada orientation from 1916-1922/3, and could be found in locations as diverse as Zurich, Berlin, Cologne, New York and Paris. Francis Picabia has been associated with Dada productions in Barcelona, Zurich and New York,

collaborating with Marcel Duchamp, Man Ray and producing his journal *391* in that city. Picabia came to Paris in late 1919, followed by the Romanian artist Tristan Tzara who had written a Dada 'manifesto' in Zurich in 1918, published in the small magazine *Dada* that he edited. Tzara's manifesto was not representative of all Dada production but it did epitomize the type of attitudes found in Parisian Dada. (See Batchelor, *op.cit.*, p.31.) Tzara's manifesto cited Cubism and futurism as part of the failing and corrupt social order and denigrating those artist's 'laboratories of formal ideas'. (Harrison & Wood, *op.cit.*, p.250, reprinted and translated extract of Tzara's Dada manifesto.) However certain aspects of pre-war artistic production associated with cubism and Picasso in particular were utilised by Dada-ists, notably collage techniques. There is no scope here to rehearse the vast and diverse range of art historical material that is associated with Dada but for further reading see R.Motherwell, *The Dada Painters and Poets*, (New York, 1951); W.Rubin, *Dada and Surrealist Art*. (Thames & Hudson, 1969); W.Camfield, *Francis Picabia.His Art, Life and Times*. (Princeton, New Jersey: Princeton University Press, 1979); D.Ades, *Dada-Constructivism* exhibition catalogue, (London: Annely Juda Fine Art, 1984.); Naumann, *F New York Dada 1915-23*. (New York, 1994); M.Gale, *Dada & Surrealism*. (Phaidon, 1997).

[139] Picabia quoted Camfield, *op.cit.* p.77.

[140] *ibid.*

[141] *ibid.* p.79.

[142] See for example, Raymond Roussel, *Impressions Of Africa*. trans. L.Foord & R.Heppenstall, (Calder and Boyars, 1966) p.40-54, first published as *Impressions d'Afrique*. (Paris: Alphonse Lemerie, 1910) The lengthy description of Bex, the chemist, and his strange glass cage that holds the fantastic machine designed to demonstrate the properties of *bexium*, a new metal with a prodigious thermal sensitivity, talks of 'elegantly curved' 'copper shafts', apparatus with a 'walnut handle' and 'vast cylinders', the descriptive list of the machine's attributes seems to anticipate some of the formal and stylistic qualities associated with both Duchamp's and Picabia's paintings.

[143] 'Roussel[...]was responsible for my glass, *La Mariée mise à nu par ses célibataires, même*. From his *Impressions d'Afrique* I got the general approach.[...]I saw at once I could use Roussel as an influence.[...]Roussel showed me the way.' Chipp, *op.cit.*, p.395.

[144] Tomkins, *op.cit.*, pp.90 & 91. Duchamp met Apollinaire for the first time at the Section d'Or exhibition in October 1912. He claimed Apollinaire first showed him Roussel's text in an interview with James Johnson Sweeney appearing in 'Eleven Europeans In America' in *Museum of Modern art Bulletin* 13, nos 4-5, 1946, pp.19-21, and that he read the text after seeing the theatre show, in conversation with Pierre Cabanne *Dialogues With Marcel Duchamp*. trans. R.Padgett, (New York: Viking Press, 1971) p34.

[145] Duchamp has freely acknowledged other literary sources as inspirational to his work, such as Mallarmé, Raymond Roussel, and Jules Laforgue but claimed in 1965 in a letter to art historian Serge Stauffer that Jarry had no direct influence on his work. See Tomkins, *op.cit.*, p.73, taken from S.Stauffer, *Marcel Duchamp. Die Schriften.* (Zurich: Regenbogen-Verlag, 1981). His counter claim was made in an interview with Tomkins (*ibid.*). Jarry's death in 1907 prompted the posthumous publication of *Gestes et opinions du Doctoeur Faustroll*, which included pseudo-scientific laws of 'pataphysics' and continued a theme of the absurd and satirical spoofs on science seen in his earlier *Le Surmâle*. These themes and the anti-rationalism of Jarry informed not only Duchamp's work but Apollinaire's and a whole range of subsequent artists who embraced the absurdity of Jarry as an aesthetic device that countered the sombre rationalism of certain artists in the post-war period.

[146] K.Samaltanos, *Apollinaire. Catalyst for Promitivism, Picabia and Duchamp.* (Ann Arbor, Michigan: UMI Research Press, 1984) p.65. The disputed reference is remarked upon by Tomkins, p.91, *op.cit.* He states that whilst Duchamp states in many of his interviews that he saw the stage production of Roussel's work with Picabia and Apollinaire, he also states on three separate occasions that did not meet Apollinaire until October 1912, some five months *after* seeing the play.

[147] See Camfield, *op.cit.* p.85. Notably the earlier 'ready mades' by Duchamp could be said to have some affinity with Picabia's images of machine parts and his use of a curious juxtaposition of title and image. This appears to relate to Duchamp's iconoclastic presentation of the found object in an unconventional context, raising questions about 'Art' and objecthood. This perceived iconoclasm made his works of interest to the Dada group of artists.

[148] Samaltanos, *op.cit.* p.68.

[149] Apollinaire singled out the elaborate titles that Picabia used for his paintings in an article, 'Salon d'Automne' in *L'Intransigeant*, 14 Nov., 1913.

[150] Camfield, *op.cit.*, p.65, also cited in Samaltanos, p.69, *op.cit.*, and first remarked on by Jean-Hubert Martin in 'Ses Tableaux sont peints pour raconter non pour prouver' in *Galeries Nationales Du Grand Palais, Francis Picabia.* Jan 23- March 29, 1976, pp 40-50.

In this context, Picabia had dedicated his book *Poèmes et dessins de la fille née sans mère* of 1918, 'à tous les docteurs neurologies en général et spécialement au doscteurs: Dupré (Paris) Brunswweiller (Lausanne)', Dupré (1862-1921) was a neurologist and psychiatrist, Brunswweiller was a neurologist and family friend of Picabia. see note 158 below.

[151] The poem was published by Picabia in *391* no.10 December 1919, p.2.
'Praxitèle est un bandagiste
Ton orteil droit
A chanté pouilles
Au cavalier qui à Venise en a trois

En Asie Mineure ou bien en Champagne
Où les cerfs apportent vous le savez
Et si tu danses le tango
Noli me tangere.’

[152] Adrian Hicken, *Apollinaire, Cubism and Orphism*. (Aldershot: Ashgate Press, 2002) p.126.

[153] Samaltanos, op.cit. p. 72.

[154] Noted by Gabrielle Buffet Picabia, as cited in both Samaltanos, op.cit., p.71 and Hicken, 2002, op.cit., p.126.

[155] Hicken, 2002, op.cit. p.126.

[156] A.R. Hope Moncrief, *Classical Mythology*. (Studio Editions, 1994) (first published George Harrap & Co. Ltd., 1907) p.46.

[157] Hicken notes that this veiled reference to a Renaissance ‘cavalier qui à Venise en a trois’ is an ‘obscure invocation of condottière Colleoni’ which signifies ‘another medical allusion since, as Apollinaire had noted already in 1909, the males of the Colleoni family were reputed to have three testicles each.’ Hicken, 2002, op.cit. p.127. Such obscure and hidden reference, and the oblique medical signification can be seen as an attitude and strategy that sums up Apollinaire’s *modus operandi* in this period, and also extends to those artists with whom he was in close contact.

[158] From Ovid, *Metamorphosis* II, 553, as cited Samaltanos, op.cit. p.72.

[159] The book had a dedication to Apollinaire from Picabia, see BD1, p.125. There is also a medical connection with the book in both the dedication to Picabia’s neurologists, including Dr Brunnschweiller who was treating Picabia for a neurasthenic condition in February 1918, and in the poem *Oiseau Réséda*. *Réséda* was used to designate not only a yellow-green colour but is also a fragrant plant with calming medicinal properties. See Camfield op.cit. note 8, p. 114.

[160] Apollinaire requested a copy of 291 in which the drawing was illustrated from Gabrielle Buffet Picabia in a letter dated July 21 1915. Samaltanos op.cit. p.72.

[161] Samaltanos op.cit. p.72.

[162] *ibid.*

[163] ‘Les Mamelles De Tiresias’, *Guillaume Apollinaire. Oeuvres Poétiques*. (Paris: Gallimard, 1984) p.897.

[164] *Ibid*, p.866.

[165] This topic is dealt with in passing in chapter four of this thesis. On p.867 *ibid*, Apollinaire writes, in a somewhat self aggrandising manner; 'J'ai écrit mon drame surréaliste avant tout pour les Français comme Aristophane composait ses comédies pour les Athéniens.' His first coinage of the term 'surrealism' appears earlier in his notes for Jean Cocteau's *Parade*, 18 May 1917.

[166] Apollinaire stated in *Les Soirées de Paris* No.1. Fev, 1912 that Picasso studied an object 'comme un chirurgien dissequer un cadavre'. This was reprinted with the slight variation in reference to a grand surgeon in *Montjoie!* 14 March 1913, and both comments appear in G. Apollinaire *Les Peintres Cubistes*. (Paris, 1913) p.14 and p.37 respectively.

[167] Comparison was made by Scapini in the review *Les Marches du Sud-Ouest* Sept. 1911. Although this issue is not available in the *bibliothèque nationale* it was cited by Picasso's friend Junoy in his book *J. Junoy, Arte e Artistas*. (Barcelona, 1912) p.57 and note 1, where he specifically mentions Scapini, describing him as a cubist theoretician, and Scapini's comment comparing the dissected cadavers of Dr Doyen appearing in Dr Doyen and J. P. Bouchon's *Atlas d'Anatomie Topographique*, (Paris, 1911) to Cubist formal qualities. Scapini's original article cannot be traced today, Bibliothèque nationale de France do not have the edition of *Les Marches du Sud-Ouest* that contained the original article, it is only through its partial reference and quotation in other publications that knowledge of this medical reference has come to light. The first, and until now, as far as can be ascertained, the only other contemporary author to comment on this is Pascal Rousseau, 2001 *op.cit*. Scapini's analysis was also commented upon some days later in the October edition of *Aesculape* 1911, where the anonymous author of 'Les Cubistes' recalled the influence of Michel Puy's analyses on Scapini. (see Rousseau, *op.cit*, p.38 and note 30.). In 1913 A. Soffici, friend of Apollinaire, also commented on the work of Dr Doyen, asserting the Cubist artists were studying this 'new anatomy' of Doyen's which involved 'congelé' (freezing) a cadaver, slicing it lengthways and taking photographs. See A. Soffici 'Cubismo e Oltre' in *Lacerba* Anno.I, No.3, 1st Feb. 1913, p.18. (reprinted in Soffici's book *Cubismo e Oltre* 1917, p.31) Soffici was also a long time acquaintance of Picasso's, the two met regularly in 1907, see Richardson, Vol.1 *op.cit*, p.6. It seems more than coincidental then that two of Picasso's 1913 works included a medical reference. *Guitar*. 'El Diluvio' and its medical references is discussed in chapter three of this thesis. The *papier collé* *Bottle and wine glass* Paris 1913 with its specific reference to Doyen is briefly discussed below in this chapter. Soffici's name also appears in the newspaper clipping in Picasso's *papier collé*, *Lacerba* (1913).

[168] Hicken, 1987, *op. cit*. p.264. The importance of Leonardo to the Puteaux Cubists and Jacques Villon in particular has been acknowledged for some time, but Spate, *op.cit*, Nozslopy, *op.cit* and Hicken, 1987, *op.cit*. reference Leonardo in conjunction with the development of Robert Delaunay's Orphic Cubism.

[169] E. Panofsky, *Meaning In The Visual Arts*. (Penguin Books, 1993) (first

published Doubleday, 1955) p.121, note 65 and p.131, note 92. This point has also been addressed by Hicken, (1987) op.cit,p.214, and (2002) op.cit. p.188.

[170] “ The new painters have been sharply criticised for their preoccupation with geometry, and yet, geometric figures are the essence of draftsmanship. Geometry, the science that deals with space, its measurement and relationships has always been the most basic rule of painting.” G. Apollinaire ‘The New Painting: Art Notes’ *Les Soirées de Paris*. April-May 1912, as quoted BR p.222. A ‘Vitruvian man’ (based on that of Caesarino) by Caporali (1531) was reproduced by Gordon Craig on the front cover of the first issue of his journal *The Mask* March 1908.

Also in 1912 Louis Thomas, a later acquaintance of Apollinaire, wrote an article that specifically linked Dürer with Cubism; ‘Albert (*sic*) Dürer, Cubiste’ appeared in *L’Art et les Artistes*, Dec.1912, pp.130-3. An unacknowledged reproduction from this article with a lengthy caption was published as ‘Albert Dürer, Precurseur du Cubisme’, *Le Journal* 17 December, 1912, p.7. This was noted by J. Weiss, *The Popular Culture of Modern Art: Picasso, Duchamp and Avant-Gardism*. (New Haven & London: Yale University Press, 1994) p.278, note 137.

[171] Rousseau, op.cit. pp.32 & 33.

[172] Ibid, pp.36 & 37. Rousseau quotes from the critic Michel Puy who in July 1911 in ‘Les Indépendants’, *Les Marges*, juill.1911, pp.26-9 insists on the “ ‘base scientifique’ du cubisme qui étudie ‘plus sévèrement la part constructive du modèle’, abandonne les ateliers pour aller dans les ‘laboratoires’.”

[173] *Le Sourire* 4 April, 1912, ‘Le Salon Des Indépendants’, illustrated by André Warnod, contained the following; ‘Le Docteur Radinsky ayant cherché les causes qui poussaient dans cette voie les jeunes fort bien de chez eux et de leur personne est parvenu à isoler les microbes de cette terrible maladie’. This was of interest to those artists who were being satirised here; Picasso cut this page out and sent it with a note to his dealer Kahnweiler in 1912.

[174] Dr Pamphylla, ‘La Médecine au Salon d’Automne’ *Le Journal* No.6962, 19 Oct. 1911. p.6. In contrast to this ostensibly more ‘serious’ denigration of Cubism using medical reference, a satirical piece in *Fantasio* 1st November 1911 by Roland Catenoy, ‘A Consultaion at the Salon d’Automne’ included a putative report of a trip around the exhibition ‘in the company of two medical men whose diagnoses of the figures in the paintings are offered. In front of Metzinger’s *Tea Time*, a ‘Cubistically nude woman’ who presents all the symptoms of ‘lithopaedion’, only previously seen in petrified foetuses; she is beyond treatment and close to death.’ This was noted by Christopher Green in *Juan Gris*. (New Haven & London: Whitechapel Art Gallery, in ass. with Yale University Press, 1992) p.115.

[175] Eugène-Louis Doyen, entry in *Dictionnaire de Biographie Française* (Paris: Librairie Letouzey et Ané, 1985) p.715.

[176] M. Howard, *Victorian Grotesque. An illustrated Excursion Into Medical Curiosities, Freaks and Abnormalities Principally Of The Victorian Age.* (Jupiter Books, 1977) p.26. The author does not cite the exact dates of Doyen's operation but the photograph, see [Fig.58] suggests it was early twentieth century. This image is briefly mentioned again in chapter four of this thesis.

[177] Standish D. Lawder, *The Cubist Cinema.* 9New York: New York University Press, 1975) p.14 & 15. Lawder reproduces a 1913 advertisement for an early medical film using X-rays and micro-cinematography showing the circulation of blood and the heart of a man pictured in action.

[178] M. Howard, op.cit.

[179] *L'Assiette au Beurre* No.61, Mai 1902 , p.1009, 'Tetes De Turcs' preface written by Octave Mirbeau. Two further caricatures sum up the ambiguity of the Doctor's reputation. See Fig.59 by Georges Villa and Adriane Barrère, both reproduced in R. Didier, *Le Docteur Doyen. Chirurgien de la Belle Epoque.* (Paris: Librairie Maloine, 1961). Again the author does not give exact dates of the illustrations, but early twentieth century seems most likely for the Villa caricature and Barrère's illustration appears again on p.103, plate 233 in exhibition catalogue from Musée de l'Assistance Publique- Hôpitaux de Paris, *De L'Elixir au Génie Génétique. Deux Siècles de Sciences Pharmaceutiques Hospitalières.* (Paris: Musée de l'Assistance Publique, 1995) the date given there is 1900. Barrère studied law and medicine. He was an illustrator for *Fantasio* and poster artist. He exhibited at the *Salon des Humoristes*, and also produced designs for the *Soirée de l'Internat* and *Bal d'Internat* , the grand social occasions of the medical interns at the Parisian hospitals. See *La Chronique Médicale* 15 Mai 1907,p.315, and see discussion below in this chapter. Villa also produced illustrations for *Chanteclair*. (see reference to Dr Babinski and Villa's caricature in chapter five of this thesis).

[180] Richard E. Weisberg,. 'The Representation of Doctors At Work In Salon Art of The Early Third Republic in France.' Published facsimile, Ph.D. thesis, New York University 1995. (Ann Arbor, Michigan: UMI, 1996) p.516.

[181] For example, *La Chronique Médicale* 1906, p.227 discusses Dr Doyen, 'un chirurgien de quelque envergure' and his attempts at writing the preface to a novel by André Avèze *L'Amour à l'envers* ; *La Chronique Médicale* 1908, vol 14 p.185 , p.187 and *La Chronique Médicale* 1910, vol 18 p.304; and *Fantasio* no.92, 15th May 1910 pp 688 & 689 made overt reference to *Le Docteur Doyen*. All these periodicals mention Doyen in a variety of contexts too varied to go into here, the point being made is that the surgeon and his work were widely known by the early twentieth century.

[182] BD I p.29, *La Chronique Médicale* Juin, No.6 1917. Doyen is also mentioned twice in this edition; 'Le génie inventif du Dr Doyen' and 'La vocation de Doyen'. *La Chronique Médicale* contained literary, anecdotal and historical articles and prose and was edited by Dr Cabanès a prolific writer on many topics reflected in the articles selected for *La Chronique Médicale*.

[183] *Sic*, No.12, Dec.1916, no author, 'Salut Au Docteur Doyen' :
Le docteur Doyen ne respecta ni les habitudes ni les académies,
Il eut l'audace de faire des découvertes sans permissions spéciales,
Il eut l'honneur d'être un homme du xx siècle,
C'est un grand esprit unique qui disparaît.
SIC salue admirativement le docteur Doyen.

[184] Savinio, and his brother Giorgio de Chirico, were close to Apollinaire in 1913/14 before Apollinaire left Paris to fight in the war. Savinio's reference to Doyen appears in the verse drama *Hermaphrodito* serialised in *La Voce*. The first part appeared in the issue for 31 March 1916 entitled 'Canti della mezza-morte. Dramma della città meridiana.' In the section 'Preludes. Tete-antichambre de ministre', *La Voce* 13 Mai 1916 he writes; 'Doctor Doyen! Make all haste to give an emergency injection of oxygen to the skeleton of victor Hugo, for he's about to have an attack of locomotor ataxia.' Apollinaire commented upon Doyen in a note in *Paris Journal* 1 August 1914, 'Un artiste medical'. Dr Doyen was involved as a medical expert in the sensational trial of Mme Caillaux, accused of premeditated murder of Gaston Calmette, editor of *Le Figaro*. Four bullets were found in Calmette's body. None of these were fatal according to Doyen, but the victim did not receive medical attention soon enough and died as a consequence. Controversially Mme. Caillaux was found not guilty on 28th July 1914. Apollinaire quoted Doyen's remark that he had been given leave to describe the trajectories of the bullets and the wounds by using illustrations. He said that these had been made by 'un dessinateur de grand talent, qui me fait tous mes dessins de chirurgie,...' Apollinaire observed that Doyen did not identify 'cet artiste de grand talent. On voudrait le connaître. Il n'est pas, après tout utile qu'il reste inconnu.'

[185] The newspaper clipping reads 'La mycolysine et la phymalose du Docteur Doyen'. as cited L. Kachur 'Themes In Picasso's Cubism 1907-1918.' PhD Thesis, Columbia University, 1988, published facsimile (Ann Arbor, Michigan: UMI Press, 1990) p.200. Kachur was unaware of Doyen's medical standing, he placed 'Dr' in brackets in his brief description of the work. Picasso's work is reproduced as plate 568, in Daix and Rosselet, *Picasso, The Cubist Years 1907-1916. A catalogue raisonné of the paintings and related works*. (Thames and Hudson 1979). This is also reproduced as plate 874, in Fabre (1990) op.cit. Dr Doyen and La Mycolysine are also mentioned in Jolivet Castelot's *Les Nouveaux Horizons* No.11, November 1910, p.329. Apollinaire owned a copy of this particular edition of *Les Nouveaux Horizons*, and the periodical and its director are discussed again in Chapter four and five of this thesis.

[186] Jordanova, op.cit. p.138. The conception of 'death' and dead bodies is further explored on pp.44-50 Deborah Lupton *Medicine as Culture. Illness, disease and the body in Western Societies*. (Sage 1995). Interestingly *L'Assiette au Beurre* No.156, 26th March 1904, had a special edition that dealt with 'Death' with humorous illustrations by Jossot.

[187] Lupton, ibid,p.45, she draws on the study by Ruth Richardson, *Death*

Dissection and the Destitute. (Penguin, 1988).

[188] Lupton *ibid*,p.46, quoting Ruth Richardson, p.55 *ibid*.

[189] Vanessa Schwartz, in Charney & Schwartz, *op.cit.* p.300-301, see also note 76 of this chapter.

[190] Josep Palau I Fabre, *Picasso Cubism 1907-1917*. (Könemann, 1996) p.332.

[191] *ibid*,p.349.

[192] Richardson, ALP II, p.375.

[193] Leonard Groopman, 'The Internat Des Hopitaux De Paris: The Shaping and Transformation of the French Medical Elite, 1802-1914.' Ph.D thesis, Havard University 1986, p.43.

[194] For details of the complex funding and structure of the *internat* and *salle de garde* see Groopman, *ibid*.

[195] *Ibid*,p.45.

[196] Dr Cabanès *La 'Salle De Garde'. Histoire Anecdotique Des Salles De Garde Des Hopitaux De Paris*. (Paris: A.Paris,Chez Montagu, December 1917) p.40-42.

[197] For example Groopman, p.53 *op cit*, cites the legend that Dr Cabanès retells on p.71-4, *ibid*, of his history of the *Salle De Garde*.

According to the *salle de garde* of the Charité hospital, the origin of the paintings decorating the *salle* dates back to when Apollo and the muses descend from Olympus to visit the city of Lutece. In seeking a place to rest they consider first the French academy and then the Academy of Medicine, but reject both as too boring and too malicious. They chose instead the *salle de garde* of the Charité, which they had heard was 'full of wonders'. There they discovered a sad group of interns lamenting their tiresome duties. One intern exclaimed that although 'these plaster walls are not leafed in gold and this ceiling is rather dull, still these walls are sacred to us. Our wealth is in being gay, which is the sole treasure of our time of life'. Apollo and the muses were received warmly by the interns and offered coffee that they declared to be superior to ambrosia. Before leaving the gods proclaimed that since 'the arts and the sciences are of one family, we will send you men, who like yourselves, have preserved the cult of friendship. On these walls, today bare and sad, will be grouped the works of our best pupils'.

[198] The pig was a feature of many of the paintings and songs associated with the hospital. As the hermit's constant companion in the desert, the interns played upon this in their songs and visual representations, implying a 'less than

holy relationship between the pig and Saint Antoine'. Groopman, op.cit p.46, expands upon this in more detail.

[199] Henri-Jules Bellery-Desfontaines (1867-1910), pupil of Galland and J.P Laurens, painted at La Charité hospital in 1892, as well as Broca hospital. He was a painter and lithographer and the *Société de La Nationale* held an exhibition of his work after his death in 1910. G. Schurr, *1820-1920. Les Petits Maitres de la Peinture Valeur de Demain*. Vol. 4, (Paris: Les Editions de l'Amateur, 1979) p.133.

[200] André Warnod, *Les Bals de Paris*. (Paris: Georges Crés, 1922) p.206. André Warnod (1885-1960), designer, illustrator and writer was part of the circle of friends at the Bateau Lavoir and known to Apollinaire who published some of his writings in *Les Soirées de Paris*. Yves Alix (1890-1969) was a painter and was at the Académie Julien in 1908 and later went on to the Ecole des Beaux Arts. Apollinaire singled out his work in 1913 in his review 'Through the Salon des Indépendants.' *Montjoie!* 18 March, 1913.

[201] *ibid.*

[202] Richardson ALP II, p.203.

[203] Marquet has numerous citations, see BD, pp.25, 41, 43-44, 51, 65, 66, 106, 135, for example. In particular he is singled out in 'The Art World. Albert Marquet', *L'Intransigeant*. 6 April 1913. Mme.Jacqueline Marval (1866-1932) showed regularly at the *Salon des Indépendants* from 1902 and at Berthe Weill's gallery. See G. Perry, *Women artists and The Avant-Garde*. (Manchester: Manchester University Press, 1995) p.41 and note 8, p.78. Both exhibitions were frequently reported on by Apollinaire, Marval appears, amongst other references, in Apollinaire's review 'The Salon des Indépendants' in *L'Intransigeant*. 28 Fev. 1914.

[204] Henry-André 'Bal de l'Internat' *La Chronique Médicale*. 1910. p 746.

[205] *Ibid*, pp.746 & 748.

[206] 'Le Bal De L'Internat' no author, *Aesculape*. No.11, Nov.1911. pp.257-260.

[207] André Warnod, *Bals Cafés et Cabarets*. (Paris: Figuière, 1913).

[208] Jean Vinchon, 'Guillaume Apollinaire En Salle de Garde' in *Le Progress Medical, Supplement Illustré*. pt.1,1924, p.5. Also noted by Christine Jaquet-Pfau in 'Guillaume Apollinaire En Salle de Garde' in *Que Vlo-Ve?* No.5, 1983. She notes that this information and the subsequent article by Apollinaire in *Paris Journal* 1st August 1914, concerning 'Neurosis and Modern Art', revealed Apollinaire's insufficient knowledge 'sur les relations entre la pathologie mentale et la création de l'image, par le dessin et par la poésie.'

[209] Samaltanos, op.cit. p.85.

[210] Scott Bates, *Guillaume Apollinaire*. (New York: Twayne Publishers, 1967) p.24. The novel Apollinaire worked on as ghost writer was *Que faire?* 1900. Bates also notes the preoccupation with scientists derived from the legacy of fin-de-siècle short stories that merged Poe's macabre fantasy with Well's and Verne's scientism to 'create a tone of learned detachment in violence characteristic of Villiers de l'Isle Adam, Marcel Schwob and Alfred Jarry, all influences on Apollinaire. All[...]exploited the end-of-the-world theme.' However the tone of Apollinaire's medico-scientific references in *The Poet Assassinated* for example, are somewhat more ambiguous, even ironic, surreal and humorous at times. p.109 'The Deified Invalid' 'To Doctor Palazzoli' in G. Apollinaire, *The Poet Assassinated and Other Stories*. trans.R. Padgett, (Manchester: Carcanet Press, 1985) makes reference to a car accident and an invalid who 'hopped'. This dialectic tension, between the serious and the amusing, the real and surreal marks Apollinaire's writing on medico-scientific matters, see for example his articles in *La Culture Physique* 1907, discussed in chapter three of this thesis.

[211] G. Apollinaire, 'La Vie Artistique', 'Nouvelle Exposition au Musée des Arts Decoratif, Outamaro, Laque Japonaise, Daniel Vierge.' in *L'Intransigeant* 13 Jan, 1912. Daniel Vierge produced numerous drawings and watercolours of patients at the Salpêtrière hospital in Paris. See Collections Catalogue for *Musée de L'Assistance Publique de Paris*, (Paris, 1998) p.116.

Chapter Three: Degeneracy, disease & deformity, the paintings of modern life.

3.1 Physiognomy and its legacy

The nineteenth century witnessed the emergence of systems of observation and classification of other cultures and races as well as that of 'degenerates' in the form of criminals, prostitutes, the insane, the Jew, and the 'lower' social orders, in short all those marginalised in and by white, Western society.

The images of the African that appeared in the illustrated Parisian press of the late nineteenth century articulated a whole range of tropes that were pertinent to significant socio-historical issues of the period; issues of race, sexuality, degeneracy and concepts of beauty and the 'enlightened' French 'race' contrasted with a construction of the African and Africa as 'other', as uncivilised and unknown, in short as 'primitive'.

The proliferation of images of the African, more frequently shown naked or semi-naked, posit the tropes of licentiousness. The semantic network of signification of such images led to the reiteration and reinforcement of assumptions about the 'other' already present in Western culture concerning black sexuality and black identity. The African became synonymous with the tropes of ignorance, laziness, licentiousness and barbarity.^[1]

Nakedness itself was a subject of continual fascination for the European during the nineteenth and early twentieth centuries but it was also fetishised; social taboos rendered the display of naked flesh into covert sets of visual codification and acceptability. The 'darling of the salon', the nude, was prevalent and also a staple iconographic motif of early avant-garde work. The pseudoscientific recording of the body in photographs, paintings and

drawings, (carried out under the respectable guise of clinical observation), even the pathology of the body, anatomy lessons, anatomical models and illustrations; all represented naked flesh in ways that were patriarchal, gendered and that conformed to patriarchal assumptions and masculine scopophilic prerogatives.

Physiognomy was particularly implicated in the classification of the ‘other’ and the ‘degenerate’. It also informed the ways in which the human form was represented in visual culture. The idea that the human face carries the signs of the real character and attributes of an individual is one that has been part of western culture since the classical period.^[2] However it was during the eighteenth century that an individual’s appearance was seen to be linked more ‘scientifically’ to their moral being. Pieter Camper, who along with Johann Friedrich Blumenbach, seen as the ‘founding fathers of comparative racial taxonomy’, used an ideal Greek head, the *Apollo Belvedere*, as the standard of European beauty.^[3] This well known image unwittingly helped to reinforce racial prejudice and stereotypes that were already prevalent in Western society, diagrammatically charting a hierarchy of mankind from ‘ape to Apollo, with the European placed next to the Greek god, and the African next to the ape.’^[4] Ironically Camper was in fact ‘fiercely opposed to claims of white supremacy based on skin colour or any other criteria, but he played an equally inadvertent, though even more decisive, part [...] in giving race the aura of an exact science.’^[5]

The skull was a permanent feature of the human body that Camper used to associate the morphology of an archetypal European with that of the ‘ideal’ beauty and proportions of classical sculptures. Camper’s comparative

physiognomy of Europeans and other humans was not meant to infer categorical racial distinction and he was opposed to the blurring of distinctions between man and animal. It was the physiognomist Johann Casper Lavater who used an animal, the frog, as the basis of his hierarchical charting of human physiognomy. As Judith Wechsler has commented, it was Lavater's late eighteenth-century text *L'Art de connaître les hommes par la physiognomie*, first published in Paris in 1806-9, that established physiognomic sign-reading as part of a tradition of French nineteenth-century culture.^[6] This tradition still had currency in early twentieth century French visual culture as will be demonstrated in this chapter. For Lavater the inner moral world was most definitely visible in the features and aesthetic appearance of the subject. 'The face's beauty and ugliness have a true and exact relationship to the beauty and ugliness of a person's moral condition.'^[7]

In Lavater's illustration there are transitional phases from the frog, 'the most ignoble and bestial' of creatures to man, the 'highest' of creatures. It was Lavater who, in the 1770s claimed to have proved, scientifically, the connection between physiognomy and the soul. Lavater's work, and that of Charles Le Brun (1619-1690), followed G. B. della Porta's animal-human comparisons in his *Fisonomia naturale* of 1622. However it was the 'expression of emotions' on the human face that, following Descartes' *Traité sur les passions de l'âme*, (1649), Le Brun developed into a more systematic treatise for painters in his lectures and posthumously published work *Conférence sur l'expression générale et particulière*, 1698. Physiognomic treatise relating to art practice continued to appear throughout the eighteenth

and nineteenth centuries, and their impact on artists continued into the early twentieth century.

Camper's training in comparative anatomy as a medical student in Leiden, under the tutelage of Boerhaave and Albinus, was strongly empirical and observational. Camper's interest in art and representation of the human body had implications for the development of his physiognomic theories, culminating in the posthumously published volume *The Works of Professor Camper on The Connexion between the Science of Anatomy and The Arts of Drawing, Painting, Statuary, etc. etc.*, published in French in 1791.^[8]

Indeed Camper, Lavater and Le Brun's work had interest for artists and caricaturists alike. Lavater's use of human-animal comparisons was a theme that many artists and illustrators would return to and for the purposes of this thesis the work of André Rouveyre and Picasso is of particular interest in relation to caricature.^[9] Wechsler demonstrates the impact of such ideas on the work of the nineteenth-century caricaturist Daumier (whom Baudelaire classed with Ingres and Delacroix) as Anthea Callen explores the theme in relation to Degas.^[10]

Picasso drew upon the images and caricatures of Daumier, Toulouse Lautrec and Goya amongst others. Picasso drew caricatures throughout his life, simultaneously engaging in such practices alongside his other developments and explorations in painting. The medical aspect of caricature, drawing as it does on physiognomy and anatomy, would also have been familiar to Picasso and other would-be avant-gardists who had received formal artistic training that dealt with such areas of concern. Maurice Raynal, Vlaminck, Marcoussis, Juan Gris and other avant-gardists all variously

indulged in caricatures either as private drawings in sketch books or as illustrations for satirical publications such as *L'Assiette Au Beurre* or *Le Rire*.^[11] However, even in certain paintings the impact of caricature and physiognomic ideas can be identified.

Picasso's *Saltimbanques* of 1905 retain the sense of caricature that was more graphically evident in his dry-point *The Dance* of the same year. Both deal with the circus characters that dominated his images in this period.

The *Saltimbanques* signify as specific characters in much the same way that Manet's *Old Musician*, (1862) draws upon 'motifs' from his other works, (*The Absinth Drinker*, (1858-1859) for example) to give a set of studies of the individual characters in a seemingly unspecified landscape.^[12] Picasso's *Saltimbanques* appears to operate in a similar way. The individual's specific physiological characteristics signify their difference from each other but also from any notion of the 'ideal' body. This departure from a standardised, accepted and even academic, notion of 'ideal beauty' is something that pervades avant-garde art practice and something to which Picasso and his contemporaries turned as an aesthetic strategy in many of their paintings and illustrations.

Wechsler also discusses physiognomic expressions and exaggerations found in pantomimes, theatrical revues and the figure of *Pierrot* that dominated popular cultural discourses in the early nineteenth century. The critic Champfleury and the poet-writer Baudelaire, amongst others, championed Baptiste Debureau's *Pierrot* whose expressive contortions took the performance beyond a mere 'clown'. The photographer Adrien Tournachen, (who also aided G. B. Duchenne de Boulogne in the 1850s), recorded

Debureau's son, Charles, as *Pierrot*, capturing some of the exaggerated facial expressions that the physiognomists had sought to classify and record. ^[13]

The theme of the *Pierrot* and the melancholic clown was one that artists as diverse as Couture, Manet and Cézanne variously explored in the nineteenth century. The iconography of the *Saltimbanques*, the acrobats, clowns and circus performers, also appears in the drawings and lithographs of Daumier and, as mentioned above, was a theme that Picasso resurrected in 1905 and one that under the guise of *Harlequin*, *Pierrot* and iconographical sources culled from the *comedia dell'arte* was a theme that Picasso and some of his contemporaries (Juan Gris for example) returned to in the post-war period. ^[14]

Apollinaire also engaged with the *Saltimbanque* theme in his poetry, and it has been suggested that the closeness of Apollinaire's poetic imagery to that of Picasso's pictorial *Saltimbanque* iconography of the period may well have been due to more than the poet's influence on Picasso in this period. John Richardson suggests that Picasso's engravings were perhaps intended as illustrations for Apollinaire's poems. ^[15]

Baudelaire too, had taken up the theme in his poem *Vieux Saltimbanque* of 1861, exploring the misery of the life of an old clown. The poem also explicitly compares the life of the old Saltimbanque with that of the old poet 'who has outlived the generation he once entertained brilliantly.' ^[16] Such nineteenth century examples of the Saltimbanque theme provided a romanticised notion of the clown, acrobat and harlequin with which twentieth century artists and poets such as Picasso and Apollinaire readily identified. Baudelaire had also written on caricature. As early as 1855 Baudelaire was advocating certain caricatures and caricaturists as worthy of attention to

artists.^[17] Of Daumier Baudelaire wrote that he ‘combined the freedom of an artist with the accuracy of a Lavater.’^[18] For Baudelaire, Daumier was a great caricaturist and made a serious art of his profession. He singles out Daumier’s ‘wonderful drawings’ commissioned to illustrate a ‘baddish’ medico-poetical publication called *La Némésis médicale* 1840, in particular one dealing with ‘Cholera’.^[19] Baudelaire also discusses L. J. Trimolet’s (1812-1843) work and reproduces a rather grim illustration from *Physiologie de l’homme de loi* Paris 1841, entitled *The Dead Plaintiff*.^[20]

Baudelaire’s legacy had a direct impact on the avant-garde painters of the early twentieth century. Not least via his importance as commentator and writer upon *modernité*, but also through the enduring fascination he had for writers and poets such as Apollinaire which helped to create a climate in which many of Baudelaire’s ideas and themes of *modernité* still held currency for avant-garde artists and writers alike.^[21]

Caricature was a widespread and popular element that dominated the French illustrated newspapers and journals during the nineteenth and early twentieth century. The work of illustrators such as Daumier, Grandville and Gavarni continued a tradition that had as its antecedents the eighteenth century English caricaturists James Gilray and Thomas Rowlandson.^[22] Daumier’s impact on Picasso has been documented and the work of Toulouse-Lautrec could also be seen to have had reference to more caricaturist, physiognomic pictorial strategies and could be argued to have informed, in part, Picasso’s early works which can be seen to have engaged with similar themes and formal characteristics.^[23]

For many artists the commercialisation of their work through newspapers and periodicals was a necessary part of survival. Lautrec and a small group of Montmartre artists, including Adolphe Willette, operating in the late 1890s and early 1900s, commercialised their artistic output in the form of illustrations and posters.^[24] This was something that continued to be a viable proposition for younger artists in the early twentieth century including Juan Gris, whose commercial work included illustrations for periodicals such as *L'Assiette au Beurre* and Marcoussis whose illustrations appear in periodicals such as *La Vie Parisienne*.^[25] Although apparently averse to 'commercial work' Picasso too produced posters and other more 'commercial' images early in his career.^[26] Interestingly there was a rather more commercialised image of *Pierrot* that Picasso used in a poster/flyer for a patent medicine called '*Lecitina Agell*' which was said to cure lymphatic conditions and bone disease. The image includes both the figure of Columbine and that of Pierrot, and is advertising the cure for neurasthenia. Picasso appears to have undertaken the commission against his normal aversity for commercial work.^[27]

The essence of caricature, reducing the main physical attributes of face or body to a condensed or exaggerated version could also be seen to be developed from some of the earlier experiments artists made in capturing the essential facial expressions of human emotion, for example the work of Charles Le Brun in the seventeenth and early eighteenth century, and sculptures by Franz Xavier Messerschmidt.^[28]

Physiognomic terms and metaphors also informed certain writer's fictional works of the period. Balzac's work is an example of such cross-fertilisation of

ideas. His concern was both ‘the classification of Parisian types and their immediate specific social context’.^[29] Balzac also explicitly acknowledged Lavater.^[30] In his *Histoire des Treize* Balzac examines the anatomy and topography of city life in relation to social status, beginning with an evocation of the physiognomy of the city.^[31] Apollinaire owned both texts and a number of other works by Balzac.^[32] Such ideas were of interest to him and his circle of painter friends and the titles of journals and periodicals that cover similar medico-scientific topics and were owned by Apollinaire is yet another indication that his interest in such themes and ideas was a sustained one. Apollinaire owned various texts and journals that contained material of a physiognomic kind.^[33] Apollinaire also owned a copy of Rabelais’ *Oeuvres*.^[34] Rabelaisian ideas concerning the political and social effects of transgression, laughter, the carnivalesque and caricature could also be seen as yet another source of interest that, to an extent, informed the pictorial strategies of certain avant-garde artists. Through intermediaries such as Apollinaire, the ideas of the Platonic-hermetic tradition of allegory and play that is also a feature of Rabelais’ works, to be found in his texts *Gargantua* (1534) and *Pantegrue* (1532) for example, appears to have been readily taken up in certain avant-garde artists’ work, not least by those closest to the poet, figures such as Picasso and Chagall for example.^[35] The ‘play’ in Rabelaisian writing often arises from the dialectic of the coincidences of opposites. His use of allegory and symbolism simultaneously hides the truth and meaning through hermetic imagery but is also seen to clarify truth through allegorical interpretation. This sense of punning and hermetically encoded allegory, that only certain readers of the texts will unravel is a strategy that we

find in much avant-garde work of the period in question, but also in Apollinaire's own writing in his poetry and art criticism.^[36] Many of Picasso's caricatures of those closest to him were distinctly Rabelaisian in their excesses or reference. For example Picasso's book plate for Apollinaire of 1905, which depicts Apollinaire as a Gargantua-type King, 'portly and intoxicated' and 'a variation on the theme of the clown who is also king and the king who is no more than a clown- a subject common in mediaeval literature[...]'.^[37] and Picasso's other more erotic excesses seen in certain sketches and works, for example his erotic drawings of 1903. [Fig23] The physiognomic descriptions in Rabelais are also devices for bawdy or scatological humour, punning and double meaning and the human body is a central organising metaphor of Rabelaisian discourse. These ideas will be addressed below in relation to Picasso's 1907 work *Les Femmes d'Alger (O. J. and Co.)*.

The legacy of physiognomy then impacted not only on the visual arts but on literature as well. Lavater's legacy was a lexicon of distinguishing physiognomic signs which became popular across Europe during the nineteenth century particularly through the more accessible and successful French edition of his work edited by Dr Moreau de la Sarthe which was published under the title *L'Art de connaître les hommes par la physionomie* and appeared in four volumes between 1806 and 1809 and was reissued in ten volumes by 1820.^[38] Lavater's theory of the correspondence between physical appearance and moral character became a widely disseminated and popular 'science'. Moreau's edition paid particular attention to the professions and métiers.^[39] Particular professions, such as prostitution, politics and law,

provided the observer with discriminatory models to apply to those peoples. It is no surprise then that such groups and professions became the focus for many caricaturists, artists and writers alike.

Moreau's updated edition of Lavater's work included a section on phrenology, and indeed, Balzac makes frequent reference to phrenology in his works. F. J. Gall's phrenological theories were made popular through such works as Moreau's and through literature and caricature by writers such as Balzac and caricaturists such as Daumier.^[40]

Physiognomy then continued to inform artists' work and the caricatures of the nineteenth century that documented Parisian socio-cultural activity also engaged with the themes and characters of modern life. Echoing Baudelaire's 'heroes' of urban *modernité* and social outcasts, the focus on prostitutes, gypsies, brothels, music halls and dancers bridged both visual and literary artistic practice.

Physiognomic theories of expression in art was something that artists in the nineteenth century turned to through their dissatisfaction with the doctrine of idealised and conventional beauty.^[41] This is yet another artistic position which continued to inform early twentieth century avant-garde artist's work. The legacy of the nineteenth century physiognomists was not just to provide early twentieth century artists with an 'ideal' of human physiognomy, but also with an understanding of the antithesis of such ideals, and as such a potent weapon in the avant-garde's challenge to mainstream, more conservative art practices and by extension another signifier of the 'modern' in art.^[42]

Caricature and the legacy of physiognomic studies was something with which avant-garde artists of the early twentieth century, including Juan Gris,

Marcoussis and Rouveyre, engaged. Medical caricatures were rife and, as documented elsewhere in this thesis, whole issues of humorous illustrated periodicals such as *L'Assiette au Beurre* were devoted to the topic. Large institutions and defined socio-cultural groups, doctors, those in the legal profession, the Church, the *demi-mondaines* of Parisian life, all were targets for the caricaturists and social commentators. In turn this provided yet another source of visual iconography and punning that many artists utilised, either consciously or unwittingly in their work.

Physiognomy is a device that both decodes character and a schema for encoding human interactions.^[43] As such it provided artists with a useful approach, and the physiognomic 'signs' encoded in the caricatures readily reveal the socio-economic and socio-cultural expectations and realities of Parisian society. The caricatures of Steinlen, Daumier, Garvagni and others almost amount to a social history of Paris in the mid-nineteenth century. The social, sexual and religious mores and prejudices of that time are deftly summed up in caricatures by such artists.

The work of artist-illustrators in the early twentieth century was no exception to this. This type of social history documentation, however humorous or moral, engaged with modern life in every sense. However, in 1906 Paul Gaultier made the distinction between modern caricature and the work of nineteenth century caricaturists such as Daumier. He notes that 'Comme l'art moderne, enfin, la caricature contemporaine est pessimiste' and the subject matter of modern caricaturists is often of 'des misérables créatures' the 'filles de joie' and other pessimistic topics.^[44] Indeed satirical and other illustrated periodicals frequently did seem to concentrate on such

people and professions. However, similar images were produced in the nineteenth-century and again, it appears to be a reflection of the contemporary socio-cultural fascination with prostitution the demi-monde and its impact on the French population.

Popularisation in defining character-types in the nineteenth century and the proliferation of 'caricature' in the popular press ensured the continued relevance of physiognomy to twentieth century visual artists. Physiognomy could also be said to have informed, in part, the visual caricatures and punning associated with early twentieth century avant-garde artists such as Picasso, Juan Gris and André Rouveyre. Picasso's use of caricature invades his work throughout his life; examples of caricature, from *Zola*, (1900) through sketches for *Carnival*, Barcelona (1900) to caricatures of the insane, prostitutes, and later caricatures of his friends such as Apollinaire; Juan Gris produced numerous caricatures and illustrations for *L'Assiette au Beurre* such as 'Guidés par un besoin,' *L'Assiette au Beurre*, 29 August 1908, and André Rouveyre's drawings of Parisian celebrities such as Sarah Bernhardt, Henri Bergson, Remy de Gourmont and others in his numerous publications.

As Callen notes, during the nineteenth century the visual classification of character types fulfilled an urgent social need, in the rapidly transforming centres of urban *modernité* the emergence of new social classes and changing distinctions between genders needed to be classified and identified. Thus, 'Physiognomy- along with phrenology[...]and pathognomy[...]dominated the popular imagination in Paris until the mid-nineteenth century and beyond'.^[45] The legacy of such nineteenth century discourses and their impact upon the

avant-garde during the first decades of the twentieth century cannot be underestimated.

It was also during the nineteenth century that the French neurologist Guillaume-Benjamin Duchenne (known as Duchenne de Boulogne) undertook a series of experiments using electrical currents applied to specific facial muscles to produce a ‘vocabulary’ of facial expressions corresponding to specific human emotions. Duchenne de Boulogne was aided by the photographer Adrien Tournachon in creating his ‘experimental living picture of the passions’.^[46] Such experiments brought together physiognomic models, scientific investigation and visual culture . This provided a means by which knowledge of such medico-scientific models and experiments were more widely disseminated throughout European nineteenth- and early twentieth-century cultural discourses. Duchenne de Boulogne’s experiments were to construct a visual vocabulary of facial expression that would be invaluable to artists. Without knowledge of physiognomic mechanisms, he argued that artists could not render human facial expressions accurately.^[47]

The visual recording of the face and body has always been a point at which the discourses of art and medicine interconnect. As well as two dimensional recording of the body, there has also been three dimensional attempts to classify and record the body and face. Apart from sculptures as mentioned above, there is also evidence from 16th,17th and 18th century of wax models, primarily used in the service of the medical profession, but none the less conforming to artistic doctrines and modes of display. However one of the most important developments in the recording of the human face and body was the introduction of photography. Photographic documentation of

criminals, diseased patients, the insane, prostitutes and all those classed as 'degenerates', including those people of different ethnic origin other than the white European, became widespread by the end of the nineteenth century. The earliest medical photographic journal was the *Revue Médico-photographique des Hôpitaux de Paris*, founded in 1869 by Dr de Montméja. This was followed by the *Iconographie Photographique de la Salpêtrière* founded in 1875 by Dr Bourneville and Dr Regnard. In Spain too, medical photography was becoming more widely used and the first Spanish medical journal to regularly feature photographic images was *La Andalucía Médica* founded in 1876 by Dr Rodolfo del Castillo.^[48] Used as an aid by doctors, scientists and even artists, photography was seen as an ideal way to capture in two-dimensional form the three-dimensionality of the human body.

Such photographic images of the body, culled from a variety of medico-scientific sources became a potent iconographic resource for many twentieth century avant-garde artists. Indeed the photographic images of Duchenne de Boulogne's physiognomic experiments were specifically intended for use by artists. Photography was being used as an aid in recording and observation of the human body in a variety of discursive arenas; artistic, legal, medical and so on. Drawing in clinical observation continued, for example Dr Paul Richer's drawings of incarcerated female patients at the *Hôpital Salpêtrière*. Photography was more prevalent towards the end of the nineteenth century and photographers such as Albert Londe contributed to iconographic records such as those made by the *Hôpital Salpêtrière*.

The physiognomic model can be mapped into the twentieth century via an examination of the work of key artists of the period, but also in the

iconographic evidence found in examples of popular culture and the wider dissemination of such ideas via intermediaries such as Apollinaire.

Generally the work of the eighteenth-century physiognomists can be seen to inform, to a greater or lesser degree, nineteenth century developments in racial science, anthropology and anthropometrics, all of which had a bearing upon the representation of the human form by artists, (mainstream conservatives and avant-garde alike), from both the nineteenth and early twentieth centuries.

The French philosopher Comte de Buffon proposed a climatic theory of racial difference in physiognomy, skin-colour and morphology dividing humanity into two; 'one progressive, the other static and animal-like'.^[49] His work, published in series of volumes, *L'Histoire naturelle* produced from 1749-1804, developed an idea of 'going native' that was to dominate nineteenth and early twentieth century discourses of colonialism and racism. According to Buffon, in the state of barbarity, man loses his noble nature and resorts to a savage life and is 'degraded to [a nature] that is beneath the animal'.^[50] Buffon's discussion of Africans leads to a division within this category of different 'types', and within this a hierarchy in which those that are partially 'civilised' are implicitly seen as more developed, ie closer to the European ideal. His writings also posit the idea of 'the most beautiful people on the whole of the earth' being all Europeans, Greeks, Persians, Turks and Circassians. This, as Bindman states, gave nineteenth-century race scientists 'the notion of an Indo-European race of exemplary beauty, which was to be identified with the 'Aryan race''.^[51] Such ideas also impacted on the visual

representation of the 'other' and led to ideas concerning the 'degenerate' which had implications for representational art practices.

The nineteenth-century anthropologists, criminologists and physiognomists placed race at the centre of their investigations and the measurement of the skull was a particular feature of their scientific procedures in classification of other cultures and races. It was the skull, amongst other means, that was used in demonstrating nineteenth century theories of degeneracy, itself a by-product of evolutionary discourses. In 1865 the anthropologist Paul Broca (1824-80) invented a method of measuring facial features using the average dimensions of the human skull, from the back of the head to the front of the brow. These ideas followed from earlier methods developed by the Belgian mathematician Adolphe Quételet (1796-1874) who applied statistical methods to the study of the human body, developing a notion of the 'average man' from which all other deviations in human typology could be measured.^[52] The measurement of the human body as a means of classifying the criminal, the insane, the degenerate or the 'racial other' is another feature of nineteenth century discourses that provided the early twentieth century avant-garde artists with a pervasive and rich source of visual iconography upon which to draw.

These ideas had a demonstrable impact on the visual arts and the way in which the artists represented the human face and body. As Jean Clair and Anthea Callen have shown, Degas changed the sloping brow of his sketches of a young female for his sculpture *Petite danseuse* 1880, to conform with topical notions of the criminal type.^[53]

It was during the nineteenth century that the classification and recording of criminals, 'degenerates' and those deemed 'other' in French society became widespread, due in part to the development of photographic processes. As early as 1841 Parisian criminals were being daguerretyped and put on file. In 1880 Alphonse Bertillon (1853-1914) developed more rigorous and precise methods of recording the facial and physical identity of criminals. Bertillon, son of, and brother to Parisian physicians, was a physical anthropologist who also worked for the Préfecture de Police in Paris. Bertillon used specific measurements of the criminal's body developing a precise set of anthropometric details to be taken from each subject.^[54] In addition to these measurements he also used photography to record the individual subjects, and developed a systematic form of criminal identification. His system of classification of criminal types became internationally recognised when in the 1890's his ideas were promoted in Chicago, Illinois and St.Petersberg in America. Bertillon also played a part in the notorious Dreyfus affair, in 1894, erroneously ascribing an incriminating document as having been authored by Dreyfus.^[55] Such was his notoriety that even in the early twentieth century he still had fascination for the public. A caricature illustration appeared on the front cover of *L'Assiette au Beurre* on July 3rd 1909 depicting Bertillon in top hat and suit, in a public toilet, examining finger prints on the walls produced with 'material which might be expected to be found there-[...]'.^[56]

The fascination for such figures was due in part to the popularity of crime fiction as much as interest in real life criminal cases. *L'Assiette Au Beurre* cover is said to relate to a criminal case that Bertillon's methods helped solve involving a M. Henri-Léon Scheffer, allegedly the first man in Europe to be

convicted on fingerprint evidence alone.^[57] There is also evidence that Juan Gris quite consciously included a reference to Bertillon in his collage of 1914, *Figure Seated In a Café*. J. Charlat Murray's exhaustive and frequently cited research into the *papier collés* of Picasso and his Cubist collaborators drew attention to the newspaper headline that appears in the collage: "Bertillonnage: On ne trugera plus les oeuvres d'art", referring to Bertillon's proposal that artists fingerprint their works to prevent forgeries.^[58] It was through a variety of cultural sources that knowledge of such figures as Bertillon was more widely disseminated, not least in the newspapers and popular fiction of the period.

For the first few decades of the twentieth century the character of *Fantômas* exerted a powerful fascination for French avant-garde painters and poets as well as the public in general. The fictional creation of the writers Marcel Allain and Pierre Souvestre, *Fantômas* was a criminal character of unmotivated evil, moral transgression and diabolical perversity. The *Fantômas* crime stories appeared monthly from February 1911 to September 1913 published in Paris by Arthème Fayard. In the first book, Bertillon is mentioned by name when Inspector Juve of the Paris Sureté uses 'Bertillon's dynamometer' to prove the innocence of one the characters.^[59] In May 1913 the first *Fantômas* film was released by Gaumont director Louis Feuillade, who produced five *Fantômas* films in total from 1913 to April 1914. It was also in 1913 that Apollinaire, Picasso and Max Jacob founded the *Société des Amis de Fantômas*. Various authors have demonstrated the fascination the avant-garde had with the figure of *Fantômas*. Apollinaire, Max Jacob, Blaise Cendrars, Maurice Raynal and Juan Gris all variously made reference to the

character in their work.^[60] In particular, Gris's 1914 collage mentioned above, (*Figure Seated In a Café*) has been singled out by Robert Rosenblum as another work in which the enigmatic figure of *Fantômas* is subtly referenced. Part of *Fantômas* appeal lay in his ability to be 'everywhere and nowhere' (a simultaneity that would appeal to the Cubists painters who associated with Apollinaire), and his ability for deception, disguise and to be able to 'get into objects'.^[61] Rosenblum has noted that the figure 'hiding' behind the copy of *Le Matin* in Gris's collage may be *Fantômas* himself.^[62] The explicit reference to Bertillon in the collage seems to add weight to this hypothesis.

It was often through such popular cultural discourses that ideas of a more medico-scientific nature were more widely disseminated and became common cultural currency, thus becoming available to the artists in question without their specific recourse to academic texts or conscious research as such.

Medico-scientific discourse underpinned the various developments in nineteenth-century criminology and anthropology. Through more popular cultural 'texts' ideas of criminal physiognomy and the marks of 'degeneracy' also became common currency. Photography is also implicated here in the widespread dissemination of such knowledge. The Italian physician and criminologist Cesare Lombroso used photography to record the various physiognomic details of the criminal-type, developing a theory of atavistic criminality which had implications for the prevention, detection and punishment of crime in Europe. Lombroso, Max Nordau and other nineteenth century criminologists, anthropologists and physiognomists helped define, and classify, a popular construct of the degenerate; it was a model that was to last

well into the twentieth century. Whilst many of these criminal, psychological and physiological theories of degeneracy differed in detail from each other, the public understanding of ‘degenerate’ became more homogenised and integrated into the popular consciousness. Such ideas permeated cultural discourses, literature and painting particularly.

3.2 The Idea of the Degenerate.

The idea of degeneracy as a medical construct and its impact on French culture had particular appeal from the 1870s on. This is in part a consequence of the socio-political climate following the Franco-Prussian war of 1870, the siege of Paris, followed by the Commune. Daniel Pick has noted how medical analogies were being used to explain socio-political phenomena at the time, and Robert Nye also shows the pervasiveness of the medical model of national decline in this era.^[63] The reasons for the perceived ‘decline’ in the French nation ranged from depopulation (a dramatic decline in the national birth-rate from 1870s on); the rise in ‘criminality’ and increased population in the insane-asylums; the growth in the French suicide rate; to a variety of health issues such as alcoholism, syphilis and tuberculosis.^[64] These health problems were linked to the decline in birth rates but more alarmingly, they were also bound up with a notion of degeneracy and ‘heredity’ that had been developing through a variety of discursive fields such as criminology, anthropology, psychiatry and medical jurisdiction, throughout the nineteenth-century. The discourse of degeneracy in late nineteenth century France was something that pervaded all areas of life, from social to political to legal and cultural.

The work of the criminologist Cesare Lombroso was crucial to the popular understanding of the 'degenerate' type. Degenerates were classified as those exhibiting the pathological signs of degeneracy or the hereditary 'taint' of an atavistic marker of degeneracy. Lombroso, as Pick has shown, developed a science of crime that was bound up with an anthropological, evolutionary conception of 'backwardness' and an idea of the criminal type being close to a 'primitive' state.^[65] The 'degenerate' then became interchangeable with the idea of the 'primitive' in certain discourses.

Contributing to the idea of the degenerate, French discussion of mental pathology was also circumscribed by the debates over heredity and evolution. Charles Féré, a mental pathologist described the areas of heredity and the physical and moral attributes that were passed on to the subsequent generations, and how they manifested themselves in those generations.^[66] Criminals were seen in such accounts to be part of a seemingly separate breed of anti-social individuals whose families were marked by 'madness, imbecility, idiocy etc'.^[67] Such criminal types were seen as individuals whose 'pathological symptoms were given full rein during those periods of revolutionary outburst, which marked the history of nineteenth-century France'.^[68] Thus 'crime may be regarded as a disease of the body politic' as Bernaldo de Quirós wrote in his *Modern Theories of Criminality* of 1898.^[69] Daniel Pick has also argued that the 'body' was seen in late nineteenth century France as the 'crucial point of intersection between history and biology'.^[70] De Quirós' dense and detailed text included reference to the 'origins of criminology', (ranging through discussion of so called 'occult sciences' of physiognomy, phrenology and so on) the work of Lombroso, to

anthropological theories of criminality, theories of degeneration to applications of theories in the identification of criminals, including anthropometrics .^[71]

It is interesting to note that de Quirós' text was republished in 1911 and that many of the ideas contained therein had not only retained credibility, across Europe, but had become part of a more general, publicly understood 'knowledge' of criminality, *qua* degeneracy by the early twentieth century. As late as 1913, a French publication, *L'Idée de Dégénérescence En Médecine Mentale* by Dr Georges Genil-Perrin and dedicated to the eminent French medico-legal psychiatrist Gilbert-Ballet, was still utilising the work of Lombroso, Morel and Magnan concerning heredity degeneracy as well as discussing the work of the Austrian psychiatrist Richard von Krafft-Ebing.^[72]

Lombroso's ideas and the many theories of degeneration that abounded in the nineteenth century were more widely disseminated through many seemingly unrelated discourses such as popular literature. Indeed as will be addressed below, such popular cultural sources were a crucial part of the availability of medico-scientific iconography and metaphor for the early twentieth century avant-garde artist, not least in the continued popularity of certain nineteenth century novels, but also through the on going debates that developed from nineteenth-century discourses of degeneracy, anthropology, criminology and colonialism, circumscribed as they were by medico-scientific discourse.

Apart from Lombroso's own discussion of artistic temperament where links between 'genius' and madness were being made; genius being a 'neurosis' and an indication of an 'inherited tendency towards cerebral

disequilibrium'^[73], his work also informed certain nineteenth-century literary novels, and paintings.

Huysmans' novel *A Rebours* (1884) caused scandal not least because of the apparent 'pleasure taken in the narrative of decomposition, the disintegration of bodies and families', this was the novel's obsession with degeneration.^[74] Des Esseintes, the central character is a depraved degenerate, indulging in 'unnatural' love affairs and eventually he becomes insane.^[75] 'Decadence' marks the novel, and such 'Decadent' themes can also be seen to inform the work of certain early twentieth century artists and writers, as will be addressed below. The character of Des Esseintes is thought to be based on a number of dandies and decadents that Huysmans knew, but particularly Robert Comte de Montesquiou-Fezensac (1855-1921). The eccentricity of both the real Comte and that of Huysmans' central protagonist would have appealed to the avant-garde of the early twentieth century, and it is no coincidence that it was Montesquiou who, in 1906, wrote the critical essay prefacing André Rouveyre's *La Comédie Française de Rouveyre*.

Zola was critical of Huysmans' novel, despite Huysmans being regarded once as part of Zola's Médan Group of Realists. Rémy de Gourmont paid tribute to the novel, and its championing of Baudelaire, Verlaine and Mallarmé who were of interest to those artists and writers operating in the post-Symbolist milieu of early twentieth century Paris.

Max Nordau, Hungarian born, but who practised medicine in Paris during the 1880s, was most renowned for his theories concerning degeneration and the arts. His text, *Degeneration*, (1892), first published in German but translated and circulated throughout Europe and America, included an

examination of degeneracy amongst the French literary decadents and artists, including Huysmans.^[76] A *fin-de-siècle* work, it provided many of the subsequent 'models' of degenerative behaviour and traits. His work followed that of Lombroso, to whom the book is dedicated, and the physical markers of the degenerate were detailed. Baudelaire, Verlaine, Mallarmé, Maeterlinck, Huysmans and Zola are some of those singled out for critical attack in Nordau's text; for example the physiognomic and anthropometric markers of degeneration in the poet Paul Verlaine were discussed as scientific 'fact'.^[77]

Equally artists such as Rodin were also singled out for their erotomania and degeneracy. According to Nordau madmen and madwomen posed for Rodin and 'the patients of the Salpêtrière or the atlas of pictures edited in [Charcot's] clinic (*Iconographie de la Salpêtrière*) evidently deserved him.'^[78] Impressionism was linked to Charcot's research into hysteria and the material painterly marks of the Impressionist style were aligned with degenerative medical conditions.^[79]

Such pathologisation of innovative artistic practices continued into the early twentieth century with a notable illustration of this phenomenon in Apollinaire's response to an article written by Dr Artault in which the Doctor described Cubism as a pathological presentation of a medical condition known as 'scintillating scotoma', the most frequent symptom of ophthalmic migraine. Apollinaire attacked this mania of doctors seeing diseases everywhere.^[80] An article in *Le Journal*, 7th November, 1912, also discussed Cubism and Futurism in medical terms, drawing upon the idea of insanity and the abnormal, a legacy of Lombrosian theories of degeneracy and other more psychological theories of degeneracy. The author, 'Dr V.' discusses the

strange and incoherent art of the ‘Cubists’ and ‘Futurists’ on show at the annual *Salon d’Automne*. The work is described as ‘productions artistiques des déments’ and the author notes that a Doctor Rogues de Fursac considered it important for the psychiatrist to study certain art practices in relation to illness.^[81]

The idea of degeneracy was a potent one, it became a focus for medico-legal discourses, and those designated as ‘degenerate’ became a useful repository into which society’s ills could be channelled and to whom blame for national decline could be firmly attached.

Nordau’s attack on writers such as Huysmans and Zola, apart from singling out their degeneracy, was also fuelled, in part, by outrage toward the use of references to medico-scientific models, particularly in Zola’s novels. For Nordau, ‘Science can have nothing to do with fiction’.^[82] In Zola’s novels such as *La Bête Humaine* 1890, Zola uses a Lombrosian register of physiognomic features to reveal the atavistic nature of a character. Thus the physical descriptions of characters conforms to the classificatory signs of degeneracy as postulated by Lombroso. Pick states that in Zola’s 1880 novel *Nana*:

‘degeneration becomes sexual fascination itself [...]Nana fails to reproduce the species but engenders a prolific train of defected male victims. She is portrayed as at once the castrator, femme-fatale and harbinger of anarchy’.^[83]

The female in late nineteenth century France was a metaphor not only symbolic of the hopes and aspirations of the French nation, but also of its downfall. The patriarchal gendering of both medico-scientific discourse in this period and visual and literary representations of women meant that the

image of the female prostitute represented more than just her own 'degeneracy' and depravity. She symbolised 'the very depravity of the metropolis with its contradictory images of fixity and movement, its perpetual flux of shifting crowds'.^[84] Thus Nana was also symptomatic of widely held medico-scientific beliefs that women were somehow more likely to be degenerates or to cause degeneracy.^[85] Prostitutes particularly were seen as displaying the atavistic markers of degeneracy and their social conduct was also seen as pathological and in medico-psychiatric terms. It was the French nineteenth-century medical doctor and hygienist Alexandre Parent-Duchâtelet who noted that prostitutes in public were rowdy, highly visible and transgressed public norms of appropriate 'feminine' behaviour, thus revelling in their outrageous 'abnormality'.^[86]

Other influential nineteenth-century medical doctors and anthropologists also contributed to the idea of women as somehow being at an earlier stage of development, less civilized than men and in short displaying the physiognomic or anthropometric signs of atavistic or hereditary degeneracy.^[87] Prostitution was also a key theme in many nineteenth-century paintings, both more conservative (Henri Gervex's painting of 1878, *Rolla* for example) and those works associated with the 'progressives' and avant-garde artists such as Manet, Degas, Renoir, Cézanne and Toulouse-Lautrec. It was also a theme with which the early avant-garde engaged.

The idea of the degenerate permeated many discursive fields and its impact was long lasting; as we know, as late as 1937 the Nazi party in Germany used the idea of degeneracy to classify modern art and the producers of modern art as degenerate and atavistic. In 1905, over a quarter of a century after the

publication of Lombroso's first writings on criminality and delinquency, medico-legal psychiatry was still using a Lombrosian model of degeneracy to identify the degenerate /abnormal type.^[88] Degeneration theories had appeal in France after 1890 when ' France was increasingly obliged to compete in the world economic and imperial struggle'.^[89] Population decline, crime, alcoholism and syphilis gave credibility to the idea of increasing national degeneracy. Degeneracy was applied to the interpretation of colonial expansion, class division and class struggle. As a French doctor writing on society, Bénédict Augustin Morel's theories (during the 1850s concerning crime and madness, followed later by Magnan in the 1870s and 1890s) placed an emphasis on medicine's role in preventing the onset of degeneration which he saw as stimulated by the ills of modern civilization, industrial conditions, bad housing, deficient nourishment and deficient education.^[90] This led to a deepening of the medical policing programme established in the 18th century. Valentin Magnan, following Morel's studies, established a link between alcoholism and madness in his *De l'alcoolisme* of 1874, demonstrating that a tendency in a 'degenerate type' to take alcohol in excess was an inherited trait.^[91] Thus through such studies and later works by other authors, the conflation of degeneracy with many of society ills such as alcoholism, prostitution, criminality and so on was thereby more firmly established as 'scientific fact' in the popular consciousness.

The fear of degeneracy could be said to be part of a widespread set of fears that characterised *fin-de-siècle* thinking. Late nineteenth century obsession with evolutionary discourse, degeneration theories and the medicalisation of sexuality gave rise to potent images of the corrupt and corrupting potential of

criminals, prostitutes, the insane and atavistic fears of the 'primitive', both as an internal potential of degeneracy from within western society and an external threat from the colonies.

These fears were articulated through popular literature such as Conrad's *Heart of Darkness* (1902), H.G. Wells's *Time Machine* (1894-5) and even Bram Stoker's *Dracula* (1897). *Dracula* was published a year after the term 'psychoanalysis' is said to have been coined, but as Pick notes its representational world appears distinctly pre-Freudian.^[92] Pick argues that part of the novel's task was to represent, externalise and kill off a distinct collection of contemporary fears. However there are ambiguities and unresolved representational signification which Pick sees as being bound up with the ambiguities and contradictions of connotation in degeneration discourses in this period.^[93] 'The novel, excruciatingly, says nothing of the sexual fantasies and fears it articulates so graphically as vampire attack and blood pollution'.^[94] It appears that contemporary fears, concerning 'contamination' and 'pollution', both materially of the individual body and more symbolically of the nation-state, derived, in part, from the alarming rise in numbers of cases of syphilis and tuberculosis, are encoded in the novel's narrative but in a rather ambiguous way. The novel deals with binary oppositions: purity/corruption, vice/virtue, human/vampire, sanity/insanity but shows the dividing lines are not distinct but

a vast and shadowy borderland. [...and] Stoker's text was paralysed at a threshold of uncertainty, at the turning point between a psychiatric positivism (which the novel derided), and the glimpsed possibility of a new exploration of the unconscious. The rejection of conventional science[...]was conceived to involve not so much a leap into the future as a return to an earlier knowledge: Van Helsing stoically accepts and

manipulates folklore, amalgamating it with the latest evidence from the laboratory and the clinic.^[95]

For certain artists of the early twentieth century avant-garde, such strategies informed their work. Using iconography culled from a variety of Renaissance and other pre-twentieth century sources often combined with reference to contemporary popular culture or ephemera the artists produced works with ambiguous reference and hermetically encoded meanings that appeared to reflect the interests of those around them including Apollinaire, whose self-styled Renaissance interests led to a fusion between the ancient and the modern, between occultist, alchemical interest and scientific, forward looking innovation. Chapter four below deals with some of these interests.

Despite the recourse to 'folklore' in Stoker's novel, he also mentions by name one of the leading contemporary doctor-scientists, the French neurologist Jean Martin Charcot (1825-93).^[96] Nordau and Lombroso are also mentioned and their classification of the criminal type, including the theory of craniometry used to invoke the idea of Dracula as a true criminal and degenerate, 'predestined to crime'.^[97]

As Pick notes, Stoker's novel, in referencing the investigations into degeneration and atavism, hinted at the unresolved contradiction between 'the desired image of a specific, identifiable criminal type (marked out by ancestry) and the wider representation of a society in crisis, threatened by waves of degenerate blood and moral contagion.' He goes on to assert that the degenerate was seen as a kind of social vampire who preyed on the nation and desired, as Lombroso said 'not only to extinguish life in the victim, but to mutilate the corpse, tear its flesh and drink its blood'.^[98] *Fin-de-siècle* fears

of degeneracy and contamination (alcoholism, prostitution etc) are represented in the text, as is anti-semitism, which was also bound up with certain degeneration theorists' ideas. Jews were perceived as an alien invasion and a potential threat in weakening the indigenous stock.^[99] Thus *Dracula*, as in many fictional narratives of the period, further disseminates the ideas of criminal anthropology, physiognomy and medico-psychiatry whilst also providing a metaphor for contemporary socio-political and sexual political discourses concerning morality, the family and the nation-state. The latter, seen as under threat from 'degenerates' of all kinds (The Jew, the 'primitive', the insane, the criminal, the alcoholic, the prostitute and so on) fuelled the eugenicist debates that were gathering momentum across Europe and led to a climate of fear, prejudice and intolerance of the so called 'degenerate' in the early twentieth century period.

The novel is very much a product of that time and its constructs of gender are no less marked by that patriarchal epoch. The three female vampires that try to seduce/attack Harker are almost an inversion of the *Three Graces*, or other more contemporary nudes from well known nineteenth century images such as Renoir's *Les Grandes Baigneuses* 1887; they have voluptuous, moist shining lips, the women are 'two dark, one fair', Stoker's description is sexually charged.^[100] However, there is an inversion of the normal patriarchal expectations of the gendered roles ascribed to women in this period, in both painting and fiction and social reality. The female vampires are given an *active* role, and Harker, temporarily, is given a *passive* role, reclining and paralysed as he is in this particular scene. They act as signifiers of contaminated female sexuality, as markers for the novel's implicit warnings

about moral decay and criminal depravity. In effect, by transgressing their normal patriarchal construct as passive they lose their 'femininity' and take on the active/aggressive male role of seduction/attack.^[101] This in turn helps to reinforce their degenerate position, contaminated and polluted they have become the female-degenerate, the monstrous paradox. They are abject women, associated with bodily fluid, excess, contamination and contagion. They stand for the pan-European idea of the female degenerate, seen almost as another species. Contrasted to these images are the other two female protagonists in the novel. One, seen as the archetypal Victorian virgin, idealised and ideal partner for matrimony is Mina Murray, fiancé of Harker, and the other Lucy Westenra, seen as less morally upright, with three suitors at one point, signifying as a *coquette*. It is to this character that Stoker attaches the concept of hysteria. Lucy represents many contemporary ideas about hysteria and suppressed desires, but also the metaphor of contagion and disease spread through blood that threatens and destabilises marriage and reproduction. She is the first to be bitten by Dracula and she then targets others, including her fiancé. The vampire's bite is infectious, it produces more vampires and was a 'ghastly parody of reproduction'.^[102]

The analogies with syphilis and tuberculosis are apparent, but so too with the on-going debates concerning depopulation and its causes. The symbolic function of the women in the novel also anticipates much of the early avant-garde's representational ambiguity of women in their paintings. With particular reference to Picasso and Matisse see 3.2 below.

Two other notable texts, Stevenson's *The Strange Case of Dr Jekyll and Mr. Hyde* (1886) and Conan Doyle's fictional narrative 'The Adventure of

the Creeping Man' in *Sherlock Holmes* also articulate the fear of atavism and degeneracy. In Conan Doyle's narrative there are parallels to Stevenson's text when a central character 'reverts' to being ape-like after imbibing a wonderous strength giving serum.^[103] Such ideas of the innate 'backwardness' or primitive savage were developed in part from evolutionary and anthropological conceptions of the criminal type found in Lombroso's theories.

Oscar Wilde's *Picture of Dorian Gray* (1890) engages with the binary oppositions of 'degenerates' of the grotesque East-end underworld and 'polite' society. The 'hideous Jews', 'halfcastes' 'opium addicts, prostitutes and alcoholics-a vast gallery of monstrous marionettes and squat, misshapen figures' that populate the dark side of London life in Wilde's narrative, run parallel to those found in Paris in this period. Popular fiction such as this had such trans-cultural currency that figures like Apollinaire owned copies of many of these *fin-de-siècle* texts including this one. Apollinaire's friend and collaborateur Albert Savine translated at least five of Oscar Wilde's books into French in the early part of the twentieth century and it could be argued that this is yet another indicator of the sustained interest not only in such popular literary figures, but in the themes and ideas articulated in their narratives.^[104]

Pick notes that Stevensons' *Dr Jekyll* appeared in the same year as Krafft-Ebing's *Psychopathia Sexualis*, and the novel's tension, between 'Victorian medicine, polite fiction and unspeakable sexual pathologies'^[105] would seem to articulate a pan-European fear of degeneration that was also bound up with *scientia sexualis*. Austrian psychiatrist Richard von Krafft-Ebing published his text in 1886 in which he put forward his ideas

concerning sexual behaviour. Any form of sexual behaviour outside of monogamous, marital, sexual relations was considered to be a symptom of active or potential degeneration. Modern life itself was considered part of the problem that exacerbated sexual immorality and so gave rise to the increased degenerate and pathological sexuality in society.^[106] The amorality suggested in many *fin-de-siècle* paintings, posters and novels seemed symptomatic of this sexual amorality.

Indeed, Shearer West also comments that Toulouse-Lautrec, whose work from 1892 frequently depicted brothel scenes and prostitutes in an overt manner, had ‘showed great curiosity about Krafft-Ebing’s work’.^[107] Unfortunately she does not elaborate further, but her contention that the artist was perhaps deliberately adopting a subversive strategy in representing such subjects as prostitution seems right given his avant-garde status and his continued fascination with the Baudelarian ‘heroes’ of modern life; the social outcasts, the prostitutes, alcoholics, dancers, circus performers and those marginalized from bourgeois modern society.

Such images run counter to the rhetoric of the medico-legal profession’s concern with the perceived increasingly decadent and degenerate society. Themes associated with such social degeneration as alcoholism, drug abuse and prostitution (then considered both as the symptoms *and* causes of social and national decline) proliferate in visual representations of the period.^[108] Even through to the early twentieth century, such themes occupied an important position in the avant-garde artist’s iconography and were used, in part, as self-conscious militant posturing against social, as well as artistic conventions.

Picasso's prostitutes, circus performers, morphomanes, absinth drinkers, destitutes and social outcasts of his Blue Period and beyond, continue the fascination with so called degenerates and the signs and symptoms of degeneracy, albeit utilising post-Symbolist paradigmatic painterly techniques. Following such themes by nineteenth-century artists as diverse as Toulouse-Lautrec and Eugène Grasset, Picasso's images such as *Morphine Addicts*, Paris (1900), *The Absinth Drinker*, Paris (1901) and *The Procureess*, Barcelona, (1904) engage with contemporary social phenomena of alcohol and drug addiction, prostitution and venereal disease: in short the themes and iconography of modern life.

Morphine abuse was prolific by the late nineteenth century, not least due to the invention of the hypodermic syringe in 1850 by Lyon based Doctor Charles-Gabriel Pravaz and the widespread use of the drug by the medical profession from the 1860s with its status as 'wonder-drug', seen as a universal panacea after its widespread use during the Franco-Prussian war of 1870-71.^[109] Many of those in the medical profession became addicts themselves as the toxic and addictive effects were not recognised early on in the drug's use. The prominent occultist Stanislas de Guaita enlisted the services of his friend and fellow occultist Dr Gérard Encausse (Papus) to supply him with morphine after authorities began an attempt to control access to the drug.^[110] Perceived at first as a drug for bourgeois/upper class pleasure the attraction of its euphoric qualities was recorded in both social commentary and fiction of the day. However the shock of the death of two prominent literary figures (Edouard Dubus, young poet and editor of the Symbolist periodical *Mecure de France* was found dead in a public urinal on 10th June

1895 with a syringe and two ampules of morphine in his pocket and in 1897 Stanislas de Guaita died of morphine overdose,^[111] seems to have prompted Grasset's less than condoning image of *La Morphomane*, (1897) which represents morphine addiction as far from 'radical chic'. Similarly Picasso's *Morphine Addicts*, Paris (1900) despite the apparant sensual abadon with which the figure of the left hand addict/prostitute is displayed, has a dark, menacing overtone, created, in part by use of chiaroscuro evoking the work of Goya, and is a more pessimistic image than an earlier image of *The Morphine Addict*, Paris (1894) by Picasso's friend Santiago Rusiñol which is sentimental at the same time as displaying a restrained eroticism.^[112]

Morphine addiction was common amongst many of Picasso's friends and acquaintances, including Carles Casagemas, his Spanish painter friend who first met Picasso in 1899 and accompanied him to Paris, where in January 1901 Casagemas committed suicide. Picasso's friend Max Jacob, aspiring poet and one time art-critic who met Picasso after the Vollard exhibtion of Picasso's works in 1901, was also an addict, of ether and henbane.^[113] Picasso too was known to smoke opium from 1904. He and Fernande Olivier regularly smoked opium, but there is no indication that this was an addiction.^[114]

According to Richardson, it was another poet-friend, André Salmon, close to Picasso, Max Jacob and Apollinaire, who involved the *bande à Picasso* more heavily in the use of drugs. Ether, which had played a part in the death of Alfred Jarry and to which Jacob was addicted was available legally through pharmacies. Jarry was addicted to ether partly because toward the end of his life he could no longer afford absinth, but he died on November 1st 1907, of tubercular meningitis, his demise hastened by ether addiction. Opium was

smoked in various opium dens, one organized by the painter and boat builder 'Baron' Pigeard in Montmartre. Modigliani attended another such opium den organized by his patron Dr Paul Alexandre. Dr Alexandre was known to Picasso, he had purchased a painting from the Spaniard, but it is not known if Picasso participated in the Doctor's opium 'den'.^[115] Drugs were very much part of the culture, Modigliani's addiction to alcohol, hashish and cocaine exacerbated his later development of tuberculosis from which he died on 24th January 1920.^[116] Modigliani had been close to Jacob, Apollinaire and Salmon, and it was Salmon's writing about Modigliani in 1926 that helped create the legend of the doomed painter whose creative potential was realised through drug taking. Equally Salmon's writings contained detailed descriptive passages about 'opium nights' that could have been taken from the evenings he and Apollinaire spent at the 'opium-clouded gatherings on the rue de Douai'.^[117]

As Shearer West noted in relation to nineteenth century images of absinth-drinkers by artists such as Degas and Manet, the choice of artists, such as Picasso, to depict such addicts, and morphiomanes in the early twentieth century context of on-going debates concerning moral decline, depopulation and degeneracy seems conscious and deliberate. It helps reinforce a set of avant-garde and bohemian credentials that link the artist more firmly to those nineteenth century protagonists of modernity and avant-gardism such as Baudelaire, Manet, Zola, Degas and Toulouse-Lautrec.

The appeal of decadence and subjective experience to artists and writers alike arose in part out of a rejection of positivist thinking. Drawing on Nietzschean denigration of positivism these artists and writers, of the late

nineteenth and early twentieth centuries, who embraced more subjective and experiential iconography and narrative symbolism were seen by writers such as Nordau as degenerative individuals who were more likely to take a subjective, rather than objective, view of the world. Thus:

Among thoroughly sane individuals the emotions originate almost solely from impressions of the external world; among those whose nervous life is more or less diseased, namely among the hysterical, neurasthenic, and degenerate subjects, and every kind of lunatic, they originate much more frequently in internal organic processes.^[118]

Symbolist, post-Symbolist, Expressionist art practices all have some relationship with the philosophical subjectivism that Nordau was condemning as degenerate. Such subjectivism and recourse to abstract ideas of material expression of inner emotion is part of the so called 'primitive' tendency within modern art practice and has a bearing here upon the ways in which artists such as Picasso, Matisse and Braque mediated such ideas, circumscribed as they were by anthropology, physiognomy, psychology and medico-scientific discourses.

3.3 Prostitution, Syphilis and Degeneracy.

Alain Corbin's extensive and exhaustive study *Women for Hire. Prostitution and Sexuality in France after 1850*. (1990) documents the complex development of French prostitution and its elaborate regulatory system developed during the July Monarchy and after. From *maisons de tolérance* to the more widespread emergence of 'clandestines' prostitution was seen as a threat if unregulated, not just to the moral order but 'as a biological menace to the social organization itself'.^[119] The clandestine or unregulated prostitute was a particular problem to those in the medico-legal professions because of

her ability to *appear* to be an ‘honest woman’ ‘while moving through society and thus presenting an increased risk of moral and physical contagion.’^[120]

During the late nineteenth and early twentieth century the links between prostitution, madness and hysteria were a focus for many writers on the topic but as Corbin notes, by the early twentieth century, the idea of the *practice* of ‘venal sex’ was seen as a form of madness in itself, and prostitutional behaviour was a symptom of degeneracy.^[121] The idea of the ‘born criminal’ developed from, amongst others, Lombrosian theories of degeneracy, found a parallel in the widespread notion of the ‘born prostitute’, ‘a victim of morbid heredity and who presented signs of physical and psychological degeneration[...]’.^[122]

During the late 1880s and 1890s there was a plethora of images of prostitutes circulating in the popular illustrated press (*Gil Blas*, *Le Mirliton* and *Le Monde Comique* for example ^[123]) and the focus of artists, such as Toulouse-Lautrec, on the image of the prostitute as a theme in their work appeared to address the dualistic signification of the prostitute in French society. On the one hand seen as corrupt and corrupting, a social menace, a degenerate, and on the other precisely because of this social exclusion and denigration, as something of fascination, sexually alluring, something that was part of a patriarchal and bourgeois fantasy.

Hollis Clayson has noted that by the late nineteenth and early twentieth century prostitution was less a ‘public’ concern, the numbers of prostitutes were declining, but due to various social and economic changes the prostitute was more readily associated with ‘privatised experience and libertine fantasy’.^[124] She notes that by this time the image of the prostitute in painting

is almost invariably set in an interior scene. (Picasso's 1907 work *Les Femmes d'Alger* for example, or Degas' later works, 1879-80 monotypes such as *The Serious Customer* and *Waiting for the Client*.)

The complicated conjunction between venereal disease, prostitution and sexuality was popularized by degenerative theorists in the *fin-de-siècle*. Medicalization of prostitution and *scientia sexualis* led to 'a remorseless transformation of private activity into behaviour that could be legitimately judged by standards of 'public' hygiene.'^[125] Clandestines often attached themselves to cabarets as well as other more modern meeting places including hotels and their own rented apartments.^[126] This in turn led to a reinforcing of the association of such places as cabarets, dance halls, and theatres with degenerate behaviour symptomatic of heredity degeneracy and social decline. Alfred Fouillée described performances at such places as " 'demoralizing spectacles' which are dangerous because they 'excite the passions of people' thus leading to depression and nervousness."^[127]

The anxiety, public and private alike, concerning prostitution and 'unregulated' sexuality was in no small part due to the associated problem of venereal disease, and syphilis in particular. It was a more or less incurable in the early nineteenth century and its diagnosis was perceived in popular imagination as tantamount to a death sentence. However, it killed less people than tuberculosis, but was more feared and that fear reached a peak during the early twentieth century.^[128] The rise of 'syphilography' during the nineteenth century did lead to some breakthroughs in the management of the disease. Dr Ricord made some progress in diagnosis of syphilis as separate from other venereal diseases. In 1887 the Academy of Medicine appointed a commission,

headed by Dr Ricord, to investigate prophylactic measures for containing the spread of syphilis. Dr Alfred Fournier's ideas: monitoring prostitution, instigating medical surveillance of armed forces and hospitalising and treating the infected, were endorsed by the commission.^[129]

The topic of syphilis gripped the imagination of writers.^[130] Following the theories of Morel, the myth of the heredity syphilitic became a popular theme. Degeneration theories and the rise of syphilis as yet another symptom and cause of degeneracy, madness and imbecility led to the idea of the 'hérédé' the heredity syphilitic. The nineteenth-century novels that dealt with the topic often used it in the theme of female revenge. In Maupassant's novella *Le Lit* 29, a courtesan has 'revenge' on the 'Prussian bastards' who infected her with syphilis by having sex with as many as she could and not getting treatment for her condition.^[131] Barbey D'Aurevilly's *Les Diaboliques*, (1874) details the vengeance of a Spanish Duchess on her abhorant husband with whom she is trapped in a love-less marriage. She determines to shame him by dying of the pox, and succeeds in doing so.^[132] Huysmans' *A Rebours* also addresses hereditary syphilis and presents a nightmarish vision of the contemporary fear of syphilis and degeneracy. Léon Daudet's novel *Les Morticoles* (1894) also addresses syphilis and syphilology in a 'savage sketch' in which doctors are denigrated for their profiting out of the misery of venereal disease. Daudet's novel was a popular success, and was reprinted many times, selling over 20,000 copies by 1898, and continued to be reprinted during the twentieth century.^[133] Daudet's novel drew extensively on his own aborted medical career and lampooned doctors in thinly disguised caricatures of well known medical professionals. Of those singled out for ridicule and

criticism were Dr Jean-Martin Charcot, portrayed as ‘doctor of hysterics and somnabulists’, Dr Jules-Emile Péan, of the Hôpital Saint-Louis, caricatured as a butcher and surgeon of powerful physique who boasts that he is able to ‘trepan six skulls and open fifteen intestines’ at a single session’^[134] and a fictional Dr Bradilon who builds a career on animal and human experimentation who could be a composite caricaturisation of Dr Metchnikoff and Dr Roux, or Claude Bernard, vivisectionist and experimental biologist.^[135]

Daudet’s novel represented a fear of modernisation and destruction of *la vieille France*. Thus it tapped into contemporary *fin-de-siècle* fears and was a warning against technocracy and science and the dehumanising impact of industrial technology. It was greeted with widespread favourable press in daily newspapers and was discussed amongst literary writers of the time.^[136]

Daudet’s novel also acts as another signifier of the gradual medicalisation of society that can be seen to gather pace by late the nineteenth century and early twentieth century and thus provided potent references and source material for visual art practices.

The images and paintings of modern life increasingly had recourse to themes and subjects of a more medical nature. Medico-scientific discoveries and treatments were increasingly reported in the daily press and key medical figures and the work associated with them were thereby more widely disseminated amongst the general public. Satirical papers and journals such as *L’Assiette au Beurre* regularly featured images and stories of a medico-scientific nature.^[137]

During the late nineteenth century more statistical evidence on the rise of prostitution and venereal disease was being gathered and used by scientists

and doctors alike. Such statistical evidence led Fournier to declare that syphilis was no longer just ‘the monopoly of the demi-monde’ revealing the widespread cases of syphilis and prostitution amongst various professions, classes and in men and women of various marital status.^[138] Dr Emile Laurent’s 1899 study ‘Pathologie. Prostitution et Dégénérescence’ revealed the idea that was taking hold in the professions that prostitution was a sign of heredity degeneracy and abnormality.^[139] Laurent’s work was symptomatic of the late nineteenth century obsession with degeneracy and prostitution. Still invoking Lombroso and the work of Dr C. Andronico of Messine and Dr Pauline Tarnowsky in the identification of the degenerate *qua* prostitute he lists the physiological markers of degeneracy and gives ‘evidence’ of the high rate of sterility amongst prostitutes thus adding further damning evidence of their degeneracy and threat to society.^[140] Dr Laurent’s ideas would have been familiar to Apollinaire, he wrote in many varied journals and newspapers including *La France Médicale*, copies of which Apollinaire had in his collection.^[141] Indeed *La France Médicale* was one of a number of medical journals and periodicals that covered a variety of topics of both a medico-scientific nature as well as articles concerning the arts. A number of articles listed in the contents pages of the periodicals he kept, such as *La France Médicale*, reveal the interest and knowledge he would have had in topics such as syphilis, medicine and art, dissection and anatomy.^[142]

By the early 1900s, the search for a syphilis microbe was well under way. In 1903 Dr Elie Metchnikoff and Dr Emile Roux made a discovery via experimental research on monkeys that proved a syphilis microbe existed, but was yet to be identified. In 1905 the microbe was finally identified, named

Treponema Pallidum.^[143] In May 1906, Metchnikoff presented results of his further experiments at the Institute Pasteur with Dr Roux on the attenuation of syphilis. Hopes of a cure were raised by these experiments.^[144] Dr Paul Ehrlich (1854-1915) of Frankfurt began research into a toxin that would affect the syphilis microbe but not damage the cell -- a 'magic-bullet' cure, and by May 1909, in collaboration with Hata, Ehrlich's 606th compound worked. Twenty four syphilitics were treated in October 1909 and 'Salvarsan' as it was known (or '606') was created. This was adapted some years later and 'Neosalvarsan' or '914' was the result of modifications made by Ehrlich.^[145] Such was the notoriety and public interest in Metchnikoff and '606' that Rouveyre carried out a drawing of the Doctor in 1906, which was published in André Rouveyre, *Carcasses Divines. Dessins de Rouveyre 1906-1907*. (Paris: Mercure de France, 1909). A cartoon appeared in *Le Rire*, No.409, 3rd December 1910, of a car with the number plate '606-E' and the caption 'Mais non, c'est pas mon vrai numéro; c'est un fétiche contre les avaros'. This cartoon in *Le Rire* could also be a visual reference to Octave Mirbeau's book *La 628-E8*. (Paris: E.Fasquelle, 1907). Apollinaire owned a copy of the book which detailed the trip Mirbeau made across Europe in his car with the number plate '628-E8'. Apollinaire also reviewed the book in *La Phalange*, March 1908.

Recovery from syphilis, however, was still not guaranteed.^[146] Fear of syphilis was increasing and the prophylactic measures set out by the French authorities added to the fear by sending out pamphlets aimed at educating and warning young men and women of the dangers of syphilis. However, the gendered, patriarchal climate meant that those aimed at young men were readily taken up, whereas those aimed at young women were not, and the

threat of venereal disease became more firmly established in the public imagination as something that was the fault of women, not ‘honest women’, but those clandestine prostitutes and women of easy virtue.^[147]

The propaganda against venereal peril was widespread and included popular cultural forms, posters, novels, plays and satirical illustrations in journals and magazines such as *L'Assiette au Beurre*, and *Le Rire*. For example Fig.60, drawing by André Hellé ‘The mask of sensual delight’, from *L'Assiette au Beurre*, 21 March 1908; behind the mask of the prostitute is the true face of poverty and disease. Also *Le Rire*, No.465, 30 December 1911, featured a satirical piece concerning photography of the planet Venus, ‘Causerie astronomique’ by R. Bringer et G. de Lautrec makes a pun on the idea of Venus being seen to have blemishes or marks of ‘une origine syphilitique’ and that her venereal infection could be to do with numerous conjunctions of ‘la belle Vénus avec ce soudard de Mars’!. Ehrlich’s ‘606’ is also mentioned, illustrating the fact that even in 1911 this was the only viable treatment still available for the disease.

After the inclusion of references to syphilis in certain Decadent novels of the *fin-de-siècle*, the early twentieth century marks a move towards more ‘anti-syphilitic’ literature that acted as a prophylaxis.^[148] Amongst an array of such writing Michel Corday’s *Vénus* (1901) gained notoriety. The novel was considered very modern in its defence of pleasure and the fact that morality and marriage are not defended, but the pleasure is marred by the threat of ‘the two risks’; pregnancy and syphilis.^[149] The main protagonist is an indifferent poet, with a doctor-friend who warns him of the danger involved in his womanising. The novel uses detailed and precise medical information

concerning the disease and its complications. Corday considered it a 'physiological novel' and the emphasis on lurid detail made the novel even more terrifying.^[150] Syphilomania was something doctors witnessed in their patients in the nineteenth century, but as Quétel notes, by the early twentieth century it was a 'full-blown psychosis'.^[151] The fear of syphilis marked the early part of the twentieth century in France. In 1905 *L'Assiette au Beurre* devoted an issue to 'Les Avaries' (The rotting ones). The cover depicts a sickly and disease ridden cupid, apparently a *hérédo*, born with hereditary syphilis. [Fig.61.b] It was also in 1905, on 22 February, that Eugène Brieux's play *Les Avaries* was first performed in Paris at the Théâtre Antoine.

It is more than likely that the *L'Assiette au Beurre* cover was in response to the play, which had been banned by the censor in France until then. [fig.61a] It was first read by Brieux to a select audience at the Théâtre Antoine on 11 November, 1901, and following a ban in Paris, was performed in Brussels and Liège and was widely published to critical acclaim.^[152] Dedicated to Alfred Fournier, the prophylactic nature of the play had appeal for doctors working in social hygiene. Plays of a similar nature began to appear in Parisian theatres and from 1907 on, popular soirées at the Eden Saint-Denis included a play concerning syphilis, followed by a medical slideshow.^[153]

The problem of *la prostitution clandestine* continued to generate concern and debate in many areas of life well into the twentieth century. Medical publications written at the end of the nineteenth century were republished with additional chapters indicating the continued rise in prostitution and venereal disease, particularly syphilis.^[154]

Such contemporary fears and the progressively widespread knowledge of disease via such sources as the popular press informed two key twentieth century avant-garde paintings of 1907, Picasso's *Les Femmes d'Alger (O. J. Version O)* and Matisse's *Blue Nude. (Souvenir de Biskra.)*, discussed below.

3.4 Primitive Discourse

The observation, classification and recording of the face and body was something that pervaded medical discourse during the nineteenth and early twentieth centuries and as such is inextricably linked to a variety of cultural discourses of a visual nature. The clinical 'gaze' in fact rendered the body as a site of clinical/medical knowledge, a central organising metaphor and 'statement' in medical discourse. Yet during the nineteenth century particularly, the body was also subjected to a 'legal' gaze, an artistic gaze and the gaze of colonisers and anthropologists. Thus a cartography of 'knowledge' about the body in diverse discourses of the period reveals a web of power/knowledges produced and sustained not in any linear, historicist way, but across discursive fields, outside the boundaries and borders of time, space and geographic location.^[155]

Anthropology was also something that became part of the popular consciousness during the nineteenth century, not least through the activities of European nation states in invading and exploiting other countries such as those in Africa for land and trade and the reportage images that were reproduced in newspapers and periodicals of the time representing these other countries, peoples and customs.

Alphonse Bertillon, discussed above, was also a member of *La Société d'Anthropologie* of Paris. His book *Les Races Sauvages*, was published in 1882 by Bibliothèque de La Nature, Librairie de L'Académie de Médecine, and contained physiognomic illustrations of '*les races sauvages*': Africans, North American Indians, Oceanic people and so on. These images visually encode the indigenous people as 'other', the physiognomic markers of 'difference' from the white, western 'ideal' are often exaggerated.^[156]

Such lexicons of physiognomic difference became part of common 'knowledge' and an accepted 'truth' about other so called 'races'. As such it forms an important part of the diverse and widespread iconography of the 'other' that was readily available to artists working in the early twentieth century. This iconography was not so much based on scientific and medico-anthropological exactitude, but rather was a distorted and alarmingly racist set of visual representations of the 'other', most prominently of the African 'other', distilled from a variety of visual cultural sources such as illustrations in newspapers depicting the action in the 'small wars' in Africa, colonial postcards, satirical or humorous illustrations in the popular press and so on.

Thus nineteenth-century fascination with physiognomy shaped not only identification and classification of criminals, the diseased and degenerate but also anthropological studies concerning other so called 'races'.

Such nineteenth century discourses of criminal anthropology, psychology, evolutionary theory and degeneracy all circumscribed by the developments from within physiognomy, continued to shape the visual representation of the human form and inform artist's work in the early twentieth century.

The nineteenth-century developments in physiognomy, race science and anthropology lead to an entrenched idea of the ideal typology and an essentialist view of other 'races'. If the Greek-European was the ideal then the African was the antithesis to this ideal. The African, functioning as 'primitive other', was processed in European cultural discourses as a negative set of tropes. Equally the Jew, The Irish and the white, western prostitute were all processed as 'primitive'. They functioned within the same negative expectations and metaphorical constructions as that of the African, particularly in the late nineteenth and early twentieth centuries.^[157]

An illustration in *L'Assiette au Beurre*, 9th May 1903 of a lecherous sailor grabbing a black female demonstrated the popular association of the colonies with disease, licentiousness and 'savagery' or 'going native'. As Quétel remarks, like alcoholism and 'feavers', syphilis raged in the colonies.^[158] Whilst the libertarian press made connections between 'civilisation' and 'syphilisation', the understanding of who was contaminating whom was often unclear, and more racist, nationalist viewpoints, certainly saw the indiginous inhabitants of the colonies as the carriers of disease and corruption.

Thus nineteenth and early twentieth century conceptions of the degenerate and the diseased also carried implications of race and gender. When combined the powerful scientific analogy between race and gender provided the ultimate 'other' to the white, western, male. The hierarchical nature of this analogy was reinforced by the related studies of anthropology, physiognomy, evolutionary biology and psychology. The literature concerning the conflation of race, gender and degeneracy (degeneracy imaged as disease, criminality or insanity) reveals nineteenth and twentieth century discourses of medicine,

science, anthropology and colonialism as discourses that ascribed to the non-western black female the tropes of degeneracy, disease and licentiousness. Primitive discourse in fact encompasses all such negative tropes engendered by the fusion of these discursive constructs; it both sustains and produces these mythological analogies.^[159]

Throughout Europe the metaphors of the 'other', (the insane, the prostitute, the primitive, the criminal in short the degenerate) were the lenses through which difference, in race, gender and class, were focussed. The late nineteenth-century obsession with evolutionary discourse and widespread colonial activity coupled with atavistic fears of produced a diverse body of literature concerning expeditions, colonization, the journey to the 'dark side' of man and the encounter with the 'other'.^[160]

Nineteenth and early twentieth century medico-scientific study provided analogies that located women, prostitutes, criminals, the insane *qua* degenerates within the physical, sexual and psychological categories and traits of so called 'inferior races'.^[161] In turn 'inferior races' (invariably Africans such as the Ethiopian, the Hottentot) were conflated with apes; the traits of ignorance, savageness, and aggressive sexuality were stressed.

Empirical data and scientific theory added weight to the mythological analogies already present in anthropological, biological and medical literature.^[162] The anthropometric data collected by medical scientists such as Broca, Bertillon, Verneau, Lombroso and Duchenne de Boulogne created a culture in which it was taken as scientific reality that blacks, women, prostitutes criminals and the insane were of a 'lower race' than white men and within that categorisation prostitutes were also shown to exhibit the signs of

pathology and degeneration, such as deformed teeth, skulls, sloping brows and so on, that were analogous to apes and lower species.^[163]

The degenerate as categorized by late nineteenth and early twentieth-century physiognomy and psychology is a trope of paradoxical construction. The ignorance, bestiality and licentiousness attributed to the mythic degenerate operates as a hyper-fetishistic lens through which to focus on the perceived 'dark side' of the feminine 'other'. The abjectness of the female degenerate serves to lessen her threat, diminish her disruptive power, yet provided themes for the avant-garde artist who wished to self-consciously promote his modernist credentials.

The heroisation of the poor and the social outcast, in short the themes of Baudelairean *modernité* still held currency for the early twentieth century avant-garde artists. The image of the prostitute was the ideal vehicle through which to ascribe and inscribe their avant-garde credentials, whilst evoking a critical socio-political dialogue pertinent to the ongoing subversion and attack on authority: authority envisaged as the bourgeoisie, the socio-sexual proclivities of the populace and the socio-political *status quo* of the culture in which the artist operated.

The monstrous female as the degenerate prostitute served as a metaphor and critique of contemporary Parisian socio-cultural life. From Manet and Degas in the nineteenth century to Picasso and Matisse in the twentieth, the image of the prostitute pictorially retained the nineteenth century analogies between race and gender as well as the anthropometric evaluations of the degenerate body.

In Manet's painting *Olympia*, (1863) the black servant does not just act as sign for overt sexuality, she also signifies corruption and disease.^[164] The black servant and the white *petite faubourienne* are together the signifier of nineteenth century medico-scientific analogies that collapse into the singular category of degeneracy. *Olympia* is read as 'masculinised' and assertive, her body-type was lampooned by critics and pilloried in satirical cartoons of the day that portrayed her as 'ape-like', masculinised and shameless.^[165] As with Degas' prostitutes, her physiognomy reveals the cultural expectations and assumptions about the female prostitute as a 'lower species', a race apart.

Sander Gilman examines such medico-scientific analogies in connection to Manet's painting and notes that the association of the black figure with lust and sexuality in painting and writing goes back to the Middle Ages. Yet by the nineteenth-century the image of the black body, invariably shown in conjunction with a white figure, meant a transference of signification of deviant sexuality on to the white body.^[166] Gilman also examines Manet's painting *Nana*. In a rather tenuous argument he compares the widely known medico-scientific studies of the 'Hottentot Venus', the black African woman Saartje Baartman, with Manet's painting of the prostitute *Nana* who also featured in Zola's novel.^[167] Her deviant sexuality is also shown, according to Gilman, by the artist depicting her ear as 'Darwin's ear, a sign of the atavistic female'.^[168] The Hottentot Venus, studied in conjunction with other black females in the nineteenth century, produced a model of black female sexuality that was based on pseudo-scientific reasoning and physiological difference.

Proof of the black African's licentiousness and lasciviness was constructed from the Hottentot's unique sexual parts, which were in fact exaggerated and

different from the white, western female because of genital manipulation to extend the labia and nyphae, considered beautiful by Hottentots and the bushmen as well as by tribes in Basutoland and Dahomey.^[169] These differences were however, perceived as markers of physiognomic and therefore, biological racial difference.

The 'Hottentot Venus' (also known as Sarah Bartman) was exhibited in Europe in the early nineteenth century and was part of a growing fascination with the 'colonies' and the 'other'. Ethnographic exhibitions and museums proliferated during the nineteenth-century, as did the numbers attending such spectacles. In France this was another source of 'knowledge' concerning the 'other' and their apparent physiological difference from the white westerner.

In Havelock-Ellis's *Studies in the Psychology of Sex* (1905) he proposes a hierarchy of beauty, seen by Ellis as objective and absolute, ranging from white Europeans to the black, 'lower races'. One marker of race and beauty he sees as highly significant was the buttocks. As Gilman notes, the fascination with the buttocks as a displacement for the genitalia was a feature of nineteenth century medico-scientific research.^[170] Dr René Verneau specifically cites the narrow pelvis of Sarah Bartman as a structure indicative of her primitive nature.^[171] However, Bartman was suffering from steatopygia-enlarged buttocks due to the accumulation of large amounts of fat, something which anthropologists had documented and which was illustrated in Lombroso and Ferraro's *La Donna Delinquente: La Prostituta e la Donna Normale*. (1893). [fig.62] In a later publication of 1905, Abele de Blasio (a pupil of Lombroso) published a drawing of an Italian prostitute suffering from steatopygia, making the pictorial analogy between 'prostitute',

‘primitive’ and ‘degeneracy’. [fig.63] Thus the Hottentot’s physiological differences were conflated with Lombrosian signs of degeneracy and the perceived ‘deformities’ of genitalia and buttocks were seen as markers of congenital disease, compounding her degeneracy, as she signifies both as source of corruption and disease.

Gilman argues that Manet’s painting of the prostitute *Nana* (1877)[fig.64] is in fact reproducing such visual signifiers of primitive degeneracy as steatopygia.^[172] Her *contrapposto* pose he sees as the device that emphasises the line of her buttocks and thus ‘the steatopygia of the prostitute’. However, it is more plausible that, whilst not denying her plumpness, the line of her undergarments is corresponding to that of a woman wearing the contemporary and fashionable bustle. Witness another contemporary image by Berthe Morisot of a decidedly middle-class woman, most definitely not a prostitute, or *courtesan*, showing a similar outline: *On The Balcony* (1872) clearly shows the exaggerated outline produced by the bustle, and even in Morisot’s other work, *Psyche* (1876) the effect of under-corset and layered petticoats clearly enlarge the hips and buttocks.

It is perhaps more appropriate to draw on such medico-scientific and anthropological understandings of the ‘other’ in relation to Matisse’s painting, *Blue Nude: Souvenir of Biskra* (1907). [Fig.65]

3.5 Matisse and Picasso: Painters of Disease and Deformity?

Matisse’s *Blue Nude: Souvenir of Biskra*.

Painted some thirty years after Manet’s *Nana*, Matisse was still engaged in the articulation of such discourses that were contingent upon the French

expansionism in Africa and the nineteenth century medicalisation of sexuality.

The clinical studies of the Hottentot Venus and images provided by ethnographic research and the satirical and serious illustrations they engendered were widely available in popular journals and periodicals of the period as well as in the ethnographic exhibitions that proliferated since the 1860s.^[173]

Matisse's *Blue Nude* [Fig.65] could be said to be pictorially replicating the racial and gender differences embodied in the analogies of *scientia sexualis* that pervaded French society in the treatment of the nude's body. The large buttocks, exaggerated breasts and the overt references to 'primitivist' and orientalist discourse all combine to signify the 'grotesque', degenerate, yet fetishised, body of the 'other'. The *odalisque* pose of the nude, functioning as a re-working of well established nineteenth-century art-historical conventions, also signifies the European conflation of harem and prostitute, two popular salon themes given status by painters such as Delacroix and Ingres. However, Matisse has subverted, if not directly inverted, the traditional signification of the *odalisque* pose. Here he transcribes the signification of the *Blue Nude* into the contemporary concerns of colonization, prostitution and degeneracy.

Matisse was aware of the images of North African women that proliferated in the late nineteenth and early twentieth century, via popular, mass media images such as colonialist post cards, images in newspapers and the popular press, and of course from his own trip to Algiers in 1906.

The quasi-ethnographic journal *L'Humanité féminine* (published weekly from December - May 1907) and *Mes Modèles* (published three times a month from April 1904 - April 1906) both edited by Amédée Vignola, has

been demonstrated to be just two of the photographic sources that Matisse had recourse to for images of women from so called different 'races'.^[174]

Colonialist post cards and images of Moorish or Arabic women also proliferated at this time. However, the poses they were forced to adopt were specifically for a western market, often reproducing well established art historical poses signifying sexual availability, ideal beauty and so on: poses such as the *odalisque* or variations on the *Vénus Anadyomène*.^[175] Matisse's *Blue Nude* appears at first to replicate such images in the pose and subject. Yet the treatment of the nude's body and the distortion seems to deviate from the idealised images in both *Orientalist* salon painting and erotically charged colonialist post cards of the day. The distortions have been variously attributed to Matisse's sculptures of nudes at this time and to African wooden figurines.^[176] The short cropped hair, the exaggerated breasts and buttocks and the awkwardness of the contrapposto *Blue Nude* serve to differentiate it from the idealised *odalisques*. However they could also be said to relate to the current signification of the degenerate, the prostitute and the conflation of the two into a distinctly racial category.

A contemporary publication by Dr René Verneau *La Femme dans la nature, dans la moeurs, dans la légende, dans la société*. (Paris, 1908) represented on the cover the contemporary trope of the idealised, evolved beauty of the French woman contrasted with that of the unevolved neanderthal like 'primitive'. It is no coincidence that the unevolved, 'primitive' is represented with the contemporary understanding of the physiological markers of the African. [see Fig.66] As Herbert has noted, Matisse's sculpted nudes may have called to mind steatopygia, a defining characteristic of the Hottentot

female.^[177] Indeed the evidence is more than compelling and it is possible to argue that the painted *Blue Nude* is exactly reproducing such medical analogies of the African woman with the physical deformity of steatopygia, a deformity that in fact served to reinforce her signification as highly sexualized, licentious and also corrupt.

The idea of contamination permeated such medico-ethnographic discourse and is reproduced in Matisse's nude in both the painting's formal properties and in the signification of the title. Stylistically he has distorted the traditional signification of the *odalisque* nude.

The reference to North Algiers, the precise location of Biskra, signifies the association of harem-brothel-prostitute, a specifically western conflation and one which was far removed from the original socio-cultural politics of the true harem. As Donald Gordon has shown, the French troops stationed in Africa were sexually 'serviced' by mobile military brothels, the conscription (often enforced) of local tribeswomen into the the 'bizarre caravan' was a powerful strategy of French colonialism.^[178]

The contemporary concern with syphilis also served to associate the colonized with disease, and the subtitle of Matisse's painting, *Souvenir of Biskra*, could be said to invoke the fear of contagion of such diseases and 'souvenirs' of a more medical and venereal nature. Indeed the anthropometric studies of the prostitute in the late nineteenth century located the female prostitute as a lower species and at a primitive stage of development, closer to the male.^[179] Thus Matisse's *Blue Nude* conforms to the iconography provided by African sculpture and anthropometric categorisation of the distorted and primitive racial body type, simultaneously signifying 'otherness', sexual

availability, but also disease and corruption. The blue tinged skin of the nude has also been linked with her 'primitiveness' by Herbert, and to the skin colour of the local tribeswomen.^[180]

There is also a literary connection with the work of André Gide. Apart from his interest in writing that evoked Nietzschean exaltation of life, individualism and spontaneity,^[181] Gide's novel *L'Immoraliste* (Paris, 1902) specifically dealt with a trip to Biskra by the central character, Michel, who was suffering from tuberculosis. Biskra is described in terms of lush oasis, exotic and heady. Early in the text a description of an Arab woman invokes the beauty of classical antiquity with the contemporary physiological markers of the 'primitive'.^[182] Gide was a well known writer and friend of the painter and critic Maurice Denis. It is plausible to assume Matisse would have been aware of the novel and its symbolism, even if he had not directly read it. The subtext hinted at in Gide's novel alludes to homosexuality and homo-erotica in the form of the 'beautiful' young Arab boys that the central character encounters. Indeed Biskra, as a site for sexual tourism, catered for sexualities of all persuasions.^[183]

It is not far fetched then to see Matisse's *Blue Nude* as a reworking of similar themes and iconography. It is a multiaccultural work with plurality of meaning and such readings of the work as suggested above could also be seen to stand alongside those of a more traditional art-historical argument, drawing on the legacy of Symbolism and the work of both Maurice Denis and Golberg.

Denis writing on Symbolism and Synthetism and his idea of decorative deformations in painting could be seen to inform the *Blue Nude*. The distorted line, the decorative background, the painterly quality and pigment do

not conform to a naturalistic rendering of the ‘primitive’ nude in nature. Indeed, the painting’s ambiguity in the way traditional signifiers of nude, nature and sexual availability are distorted led to its harsh reception, notably from critic Louis Vauxcelles.^[184] The formal treatment of the nude’s body went against the standard mode of representation of the female nude in fine art practice. Matisse’s painting appears to conform to Denis’ idea of ‘decorative deformations’ and whilst emphasising the painterly surface of the work, was also seeking to represent some inner-meaning or ‘resonance’, an essential ‘truth’.^[185] Thus Matisse, writing in *Notes Of A Painter* (1908), talks of the whole painting being expressive, the composition, the markmaking and so on, yet he also declares it is still then possible to search for a truer, more essential character.^[186]

The deformation of the nude’s body was deliberate and consciously applied, not some accidental expressive distortion. Matisse’s knowledge of anatomy was, according to Spurling, phenomenal. He acquired this anatomical expertise at the popular lectures given for students at the *Ecole des Beaux-Arts* by Professor Mathias Duval of the Sorbonne Faculté de Médecine.^[187] Despite the rather hostile reception of the *Blue Nude* at the *Salon des Indépendants* of 1907, it was bought by the collector Leo Stein and hung at the rue de Fleurus for many years, where Picasso would have seen it.^[188]

The themes that Matisse’s painting addressed: contemporary concerns of colonization, prostitution and degeneracy and the convergence of anatomy, medico-scientific discourse and fine art practice, are perhaps even more overtly asserted in Picasso’s painting *Les Femmes d’Alger* 1907.

Picasso's *Les Femmes d'Alger* (O.J. Version O).

Picasso's painting reveals the dialogic, multiaccentual nature of avant-garde art works, particularly of the early twentieth century. His self-consciously applied hermetic strategy was one that included systems of multiple signification, utilising reference, sign and emblem drawn from philosophical, literary and scientific models. The recourse to such initiatives is one that provides a key distinction between avant-garde *indépendants* and their academic, salon painter contemporaries. It could be argued that Bakhtinian theories of discourse and the interpretation of carnivalesque strategies (developed from Rabelaisian 'pantagruelism') serve to locate Picasso's *Femmes d'Alger* in a discourse of subversion and anarchic anti-establishment activity.^[189] *Les Femmes d'Alger* [Fig. 11] operates in a framework of multiaccentuality. It is a 'heteroglotic' work that now functions as a modernist icon. Weighed down with often conflicting readings and interpretations, its role in the narrative of Western Art has been continually re-presented and appropriated to fit certain hegemonic, Hegelian conceptions of the quasi-linear, dialectic development of 'Modern Art', for example those of critic Clement Greenberg. Its status was elevated retrospectively as art-historians and critics placed its emergence into the modernist narrative proclaiming it as *the* proto-Cubist work and beginning of the route to total abstraction in fine art practice. The many claims and counter claims made for the work often obscure the very fact that such a diversity of readings are available. This is, in part, consequent upon the dialogism of the work which resists monologic art-historical narratives.^[190]

The female degenerate in Picasso's painting is the primitivized prostitute. The analogy of race and gender again signifies the *Demoiselles* as site for corruption, disease and sexual licentiousness. Early preparatory sketches reveal that initially Picasso had included two male figures in the composition. One, later identified by Picasso as a medical student, carries a skull, a reinforcing *memento-mori* to the themes of disease and destruction embodied in the work. The other is a sailor and together the male figures act as the clichéd contrast between 'he who cures the pox and he who gets it'.^[191] The *Demoiselles* reflect Picasso's own moral and social interests as well as the wider concerns of French society.

Picasso's anarchic strategy of playful subversion was animated by real motivation toward social critique and revolution. Within his work it manifested itself in the form of caricature, metaphor and more especially in Cubist works, as puns and pictorial 'word play'.^[192] Picasso's 'gamesmanship' and anarchic absurdities are a Jarry-esque legacy that prevents a simplistic reading of his work.^[193] The subversion, satire and black humour of his paintings work as a type of Nietzschean transvaluation, rejecting and undermining contemporary moral codes and values. Picasso subverts, inverts and exposes such socially motivated values through his Jarry-esque devices.^[194] Picasso's aggressive anti-intellectualism was born of anarchistic tendencies and it served to help deny any theoretical basis to his art practice. However, the documented discussions within his circle indicate that, contrary to Picasso's own posturing, in-depth and passionate discussions of theories, (political, aesthetic and philosophic) did in fact take place. This is important

to the understanding of *Les Demoiselles*, not only in terms of its aesthetic innovations, but also to the wider social implications that its statement made.

The well rehearsed narrative of how *Les Demoiselles* was produced has itself become an almost mythical construct. Probably begun after meeting Matisse at the home of Gertrude and Leo Stein, it has been asserted that the rivalry felt between Picasso and Matisse (most especially on Picasso's part) contributed to the genesis of the painting.^[195] *Les Demoiselles* has been seen as Picasso's 'reply and challenge to the recognised leader of the avant-garde' ie. Matisse.^[196] Accordingly, Matisse's *Bonheur de Vivre: Joie de vivre* (1905-6) which Picasso would have seen at the Stein's house, has often been compared to *Les Demoiselles*.^[197] Certainly the two have similarities in compositional strategies; both framed figure groupings and both engage in art-historical reference, to Cézanne's *Bathers* (1885), which Matisse had acquired in 1901, and Ingres' *Turkish Bath* (1862), for example.

However, *Les Demoiselles* is a radical departure from Matisse's formal articulation of such themes. It could be seen not so much as an aesthetic assault on the art world, as a violent reaction to Picasso's own threatened position within the avant-garde. Indeed it could also be perhaps, more of a reaction and counterpoint to Matisse's *Blue Nude*. Given the length of time that Picasso took to complete his painting (dates are sketchy, but begun sometime in 1906 and completed in 1907) it is possible that he saw Matisse's *Blue Nude* at the Stein's, perhaps fueling his rivalry, although it is well documented that Picasso's sketches for *Les Demoiselles* were begun in 1906.^[198] As an assertion of avant-gardism *par excellence*, Picasso produced a painting so powerful that it would place him at the forefront of aesthetic

radicalism and reinstate his avant-garde credentials. Ultimately, this work is an anarchic game, a series of avant-garde gambits. Allegorical, biographical and narrative, an ironic critique of colonialism, French society's socio-sexual mores and academic salon painting; Picasso invests in, but subverts, the prevailing conceptions of the various discourses with which he engages, in his own sardonic way.

The variously interpreted dates of Picasso's encounter with African art matters little relative to the fact that the 'masks' in the *Demoiselles* signify Africanness, the primitive, and the associations of savagery, corruption, disease and licentiousness, in short the very tropes of primitive discourse.^[199] Picasso's immediate community was, politically and socially, grounded in anarchism and leftist 'bohemianism', a legacy of the nineteenth century. His work made allusions to Baudelairean *modernité*, the heroisation of the poor, the social outcast and the marginalised in society. The subject matter of *Les Demoiselles* articulates such ideas and also carries an implicit critique of western bourgeois society played out within the complex arrangement of signifying devices that simultaneously engages in the discourses of anti-colonialism, primitivism, avant-gardism, medicine and anthropology.

The painting's format and subject can be seen to build on an earlier work, *Le Harem* of 1905, painted before he left Gósol in the Pyrénées. The harem here equates as 'brothel' in western conceptions, a naked male figure occupies the lower left hand corner and is represented clutching a phallic drinking vessel, a *porrón*.^[200] It is also a pastiche of Ingres' *Le Bain Turc* (1862). The theme of *Le Harem* anticipates *Les Demoiselles*, yet Picasso goes further in *Les Demoiselles* in signifying the semantic network of associations that are

engendered by the representation of a primitivised brothel in both his radical formal treatment of the nudes and their implied symbolic function.

The association of *Les Femmes d'Alger* with a brothel and prostitutes was intentional.^[201] Comparisons of Picasso's painting with other works, such as Ingres' *Turkish Bath* (1862) and Poussin's *Grande Bacchanale à la Joueuse de Luth* (1630), makes the Eurocentric connection between harems and brothels. Such connections, however, obscure the differences underlying *Les Femmes d'Alger* and Orientalist scenes of harems or historicist images of bathers and bacchantes.^[202] The 'shock' of *Les Femmes d'Alger* lies less in the depiction of a brothel scene and more in the treatment of the female figures. The final painting of five nudes, four standing, one squatting, reveals, via elements such as the brutal, angular, 'primitivizing' of the figures, a complex set of signification competing within the wider arena of the work's discursive constructs. It is not a straightforward representation of 'woman' as the 'primitive other' of Western bourgeois society. The signs in Picasso's painting often conflict with the traditional understanding of their meaning. The articulation of female nudity and the allusion to 'Africaness' signifies the primitive with associations of woman as closer to nature, exotic, sexual and in her 'natural' state. Such tropes were readily available not only through art-historical discourse, but as discussed above, through the discourses of medico-anthropology and the nineteenth-century legacies of *scientia sexualis*. The pose of the two central *Femmes d'Alger* corresponds to the well established Academic sign for 'unblemished beauty', woman as a generic cypher, declassified personification of 'ideal beauty' sensual love and encoded sexual availability. It is found throughout art-historical discourse, in Ingres'

Vénus Anadyomène and in Bouguereau's *La Naissance de Vénus* (1863), for example. It operates as a vehicle for the male gaze, the scopophilic look that encodes woman as visual commodity for consumption in the patriarchal society of art-world relations. However, the formal and technical innovations employed by Picasso subverts and confuses the normal signification and undermines the phallogentric assurity of the viewer. The stark, angular treatment of the nudes, coupled with the primitivizing fetish masks in effect problematizes the gaze and undermines the normal, accepted signification of the Venus pose. The paradoxical signification of the work disavows any singular connection between 'woman', prostitute' and 'primitive' and throws such connections into conflict by offering unresolvable and destabilized signification. Yet the work also makes certain ideologies *qua* discourses explicit. 'Woman' here is both 'madonna' and 'whore', sexually alluring yet threatening and repelling, the 'primitive' is both 'noble' and 'savage', exotic and erotic, yet also diseased and corrupting. The paradoxical, fetishistic and ideological processes are accentuated and Picasso's painting can be read as a critique and exposé of hegemonic Western artistic traditions and French colonial interventions in Africa.

The perceived 'ugliness' and distortions of the *Demoiselles* can be seen as an aggressive challenge to artistic tradition going against established canons of beauty. The Africanist representation of the *Demoiselles* could also be seen as a device to outrage both conservative racists, who viewed Africans as subhuman, and more liberal humanitarians, who, scandalized at the abuses in the French Congo would argue that these 'savages should not be brutalized

but rather, in effect, remade in the image of the tolerant, enlightened Frenchman.^[203]

Picasso's subversion of the liberal enlightened order using aesthetic and metaphorical devices in his primitivized prostitutes was informed in part, by his own anarchist and anti-colonialist views. Such sentiments were also in keeping with his circle of anarchist and socialist friends.^[204]

Les Femmes d'Alger (O. J. R. Version O) also gives an insight into Picasso's own moral and social interests. So-called 'primitive' society had associations of barbarism, savagery and was seen as closer to nature and expressive. The primitive was thereby aligned with such tropes and more: 'primitives' were seen as ignorant, lazy, child-like, threatening, libidinous, sexually available and promiscuous. Primitive discourse abounds with such paradoxical and Eurocentric tropes, engendered through colonial propaganda, fuelled by the interventions and invasion into Africa in the nineteenth-century as well as the emergence of ethnographic exhibitions and illustrations and reports in the popular press, and medico-anthropological studies that located the 'primitive' as part of an atavistic construct of degeneracy that included criminals, the insane and prostitutes. Accordingly Picasso's *Demoiselles* can be seen not only as signs for the colonized, 'primitive other', but also the West's own internal 'others', based on their dangerous sexuality as prostitutes.

The role of venereal disease and Picasso's fear of contracting it is important to the iconography and symbolism of *Les Femmes d'Alger (O. J. R. Version O)*. At the time of painting this work, syphilis was still seen as a fatal disease, fear of contracting it was increasing and prostitution was associated with syphilis and venereal disease as a symptom of the 'dire malais of French society'.^[205] For

authors such as David Lomas, the conflation of the 'primitive' with the prostitute in Picasso's work reveals a cultural discourse of deviation and degeneracy and a growing interest in physical anthropology. Picasso certainly visited the Hôpital St Lazare in 1901, in order to and sketch prostitutes incarcerated in the prison there, and it is likely he would have witnessed the disfiguring forms of congenital syphilis.^[206] Fig.67. clearly shows the effects of congenital syphilis. Further complications to the disease, such as monocular blindness, could be seen to have been incorporated into Picasso's painting in the right hand eyes of the 'masked' *Demoiselles*, which are blacked out. Thus the symbolic function of the two male figures that appeared in the preparatory sketches, signifying 'he who cures the pox and he who gets it' as Rubin said, has not been lost, despite the removal of the male figures in the final work.

Lomas has also speculated about the nose of the *Demoiselles* and an early sketch of for the painting that includes a 'bizarre scroll-like ear', implying a formal affinity with the markers of degeneracy in Tarnowsky's physiognomic classification of the prostitute.^[207] This point however, seems a rather overdetermined reading. It would perhaps be more plausible to speak of the more general, publicly understood markers of degeneracy that were developed from medical-scientific study, yet mediated by popular discourse. Thus Picasso produced an image of the primitivised prostitute that is a more generic sign of 'degeneracy'. Through intermediaries such as Apollinaire, and popular culture such ideas (of the degenerate, physiological deformity amongst prostitutes and the markers of sexually contracted or heredity disease such as syphilis) could thereby be imbibed by artists like Picasso without specific recourse to detailed

scientific images, (although as mentioned above, it is highly likely he saw the physical effects of congenital syphilis in the prostitutes at the St Lazare).

A further iconographic detail of the prostitute relates to the growing interest in physical anthropology. Anthropometric studies of the period concluded that the body of the prostitute was ‘devoid of female charm, coarsened by *métier infâme*, [and]coupled with the ugly taint of degeneration.’^[208] Such ideas were a legacy of nineteenth century discourses of medicine and clinical classification of the degenerate that still had currency in the early twentieth century,as outlined earlier in this chapter. The masculinized *Demoiselles* would fit the popular image of the degenerate prostitute. Of course the ‘mannish’, aggressive body-type of the prostitute was not without precedent. *Olympia* (1863), masculinized by Manet (and his critics) nearly half a century earlier revealed the cultural pervasiveness of such medico-scientific discourses.^[209]

Interestingly, Picasso had already considered the symbolism of Manet’s painting. In a sketch from 1901, Picasso’s *Olympia*. [Fig.68] inverts the key subjects in an ironic parody of the original painting. *Olympia* in Picasso’s sketch is black, instead of a black maidservant profering flowers, Picasso has drawn a white male figure bearing fruit; fruit being a traditional symbol of fertility and fecundity adding to the sexual signification and something that was also included in *Les Demoiselles d’Avignon*. The body type of Picasso’s *Olympia* is similar to the popular image of the Hottentot, with enlarged thighs and breasts. The sexuality of the female figure here is graphically asserted by her colour and morphology and the attendant signification of that within this specific art-historical context. Picasso overtly represents the voyeuristic and

sexualized nature of the original *Olympia* by including himself in the work, whereas in Manet's painting, the voyeur/client/viewer is only implicitly present.

The irony that Picasso displayed in this sketch is not entirely missing from his *Demoiselles* painting. Despite the rising 'syphilophobia' of the early twentieth-century,^[210] and the widespread serious concern about depopulation and its causes, (syphilis, tuberculosis and alcoholism were chief suspects, which at the time equated to those who exhibited the signs of pathological degeneracy: prostitutes, alcoholics, the insane and the 'primitive') Picasso's painting does have an element of irony, not least in the muscular, almost androgenous representation of the *Demoiselles*.

A fad for physical culture, embodied in Picasso's works of 1905-6 imaging gymnasts, circus entertainers, 'strongmen' and so on coincided with a series of articles on circus acrobats in the magazine *La Culture Physique*.^[211] Apollinaire also wrote two subsequent articles for the magazine in February and March 1907.^[212] It is not clear whether Apollinaire's articles were ironic or serious in their advocacy of dance and sport as a cure for the 'scourges of France' (depopulation and alcoholism), however, it is possible to see them both as ironic *and* yet also reactionary conservatism on Apollinaire's part.^[213] The poet's interest in the magazine led to Picasso caricaturing Apollinaire in 1905 as a 'strong-man' holding a copy of *La Culture Physique*. It is not far fetched then to see Picasso's muscle-bound *Demoiselles* as the ironic counterside of a contemporary discourse of physical culture.^[214]

The fad for physical culture was engendered, in part, by late nineteenth-century 'purity crusaders' and those who saw sport and physical exercise as a

panacea for depopulation, degeneration and believed strongly in the regenerative and healing powers of sport and exercise. ^[215] These concerns formed part of a wider debate and resurgence in nationalism that was part of cultural discourse in the period leading up to the outbreak of war in 1914.

Indeed, Jacques Bertillon, statistician, repopulationist and brother of Alphonse, writing in 1911 was still concerned with the ‘scourges’ of France, alcoholism and ‘the crime of Onan’ and all the pathologies that weakened the reproductive capabilities of the French. ^[216] Robert Delaunay’s painting, *L’Equipe de Cardiff*, painted in 1912-13 could be seen to still be engaging in the themes of sport, physical exercise and a Nationalistic regeneration of *La France*, albeit framed within the discourses of modernity, technical innovation, speed, and stylistically signifying paradigmatic Cubist formal concerns.

The cult of physical fitness extended to Picasso when in 1916 he photographed himself in boxing shorts standing in a defiantly muscle-man pose in his studio in Paris. Richardson, amongst others has documented the craze for boxing amongst Picasso and his Montparnasse friends in the period up to the start of the First World War. ^[217] Illustrations to be found in popular periodicals such as *Fantasio* (15 May 1913), also indicate the widespread interest in *la Culture Physique*. [Fig.69]

The concern with syphilis also continued until well into the twentieth century and if anything, the First World War increased ‘syphilophobia’ engendering widespread campaigns amongst the military to combat the spread of the disease amongst the troops. Public health posters such as Steinlen’s ‘*Soldat, la patrie compte sur toi*’ [fig.70] used symbolism to convey the

warning, avoiding direct use of the word syphilis or venereal disease, but the message would have been clear. The healthy soldier is shown surrounded by laurel leaves and the Nation's flag, the other soldier, succumbing to the temptations of the street ends up waiting by the hospital and the skull and withered leaves below the tomb-like caption reinforces the message of disease and destruction.^[218] In Picasso's work too, the theme can be found in a later Cubist collage work, *Guitar: El Diluvo* (1913). [Fig.71] The guitar shape identified as a signifier for the female body and the newspaper cuttings reveal advertisements for Dr Casasa, a specialist in venereal disease and for Dr Dolcet an oculist. Frascina suggests the pun is based on the part of the title word DILUV, a synecdoche that Rubin has suggested hints at the Louvre, but which could also be a pun on louve -- 'she-wolf' signifying the female's dangerous sexuality in conjunction with the other signifiers in the work, and the oculist reference may imply eyesight alone is not a guarantee of safe sexual encounters.^[219] It also may refer to blindness and problems with eyesight engendered by syphilis.

Syphilis was also something that earlier artists referenced in their work.^[220] In *La France Médical* of 1904, a copy of which Apollinaire had in his collection, Dr Raphael Blanchard, author of 'La syphilis dans l'art' first published in the journal *Nouvelle Iconographie de la Salpêtrière*, wrote on 'Les maladies vénériennes dans l'art'. The text addressed diverse artists and writers including Dürer and Jérôme Fracastor.^[221] The figure of Fracastor would have appealed to avant-gardists such as Apollinaire. Fracastor (1483-1553) was an Italian doctor-poet and astronomer. Author of one of the most renowned poems concerning 'the pox', *Syphilis ou Le Mal Vénérien*, a

latin poem of 1530, Apollinaire specifically mentions Fracastor in *Hérésiarque et Cie*, 1910. He also owned a copy of the 1753 French translation of the poem. It has been suggested that the republishing of the poem in the seventeenth, and eighteenth centuries, in translations throughout Europe, was due to the fact of the relevance of Fracastor both as poet and as physician.^[222] Indeed the interest in the poem continues into the early twentieth century as did interest in doctor-poets.^[223]

Dr Blanchard was also of interest to those operating in the wider cultural context of the pre-war French art world. André Rouveyre included a portrait ‘caricature’ of Blanchard in his *Visages des Contemporaines* 1908-1913.^[224] Such examples serve to demonstrate the pervasiveness of the medical discourse of syphilis into culturally diverse practices, and was clearly a theme that, at least until the First World War, was of interest to many avant-garde artists and writers.

Notes to Chapter Three.

[1] The images of the colonised African came from a variety of sources including illustrations in the press reports of the 'small wars' in Africa, from the wider dissemination of images through the medium of photography and in popular cultural artefacts such as postcards which were taken back to France by the troops and thereby more widely circulated. Of course in art-historical terms images of the African or the Orient had been a frequent Salon theme since the Eighteenth century. For example the images of Harems and white slave trade to be found in Alphonse-Etienne Dinet's *Sur les Terraces, Clair de lune à Laghout* (1898), or Jules-Jean Antoine Lecomte du Noüy *L'esclave blanche* (1888).

[2] A treatise on *Physiognomics* was attributed to Aristotle in the middle-ages, see Judith Wechsler *A Human Comedy: Physiognomy and Caricature in Nineteenth Century Paris*. (Thames & Hudson, 1982) p.15.

[3] David Bindman, *Ape to Apollo: Aesthetics and the idea of race in the 18th Century*. (Reaktion Books, 2002) p.12.

[4] Ibid, p.203.

[5] Ibid, p.201.

[6] Wechsler, op.cit, p.15-16. Lavater's use of animal-human comparisons was already established in part by the Aristotlean *Physiognomics* treatise where human character was imputed from the analogy with the animal, Wechsler cites 'persons with hooked noses are ferocious; witness hawks' from the text, see ibid, p.15.

[7] Bindman, op.cit. p.95, original quotation from J. H. Lavater, *Physiognomische Fragmente, zur Beförderung der Memchenkenntnis und Menschenliebe*. (Leipzig and Winterthur 1775-78)p.63. It is no coincidence that this echoes the debates concerning aesthetic understanding that we find in works such as Alexander Gottlieb Baumgarten's *Aesthetica* (1751). As Bindman suggests, all philosophers of the period were engaged with aesthetics in some way, however it was Immanuel Kant's later work *The Critique of Judgement* (1790) that posited the idea of disinterested aesthetic judgement that was not bound up with moral or other issues.

[8] Also published in Dutch (1791), German (1792) and English (1794). See Bindman, op.cit. p.206.

[9] See Chapter 2 for detail on Rouveyre and below for discussion of Picasso.

[10] Wechsler, op.cit. and Anthea Callen, *The Spectacular Body. Science, Method and Meaning in the work of Degas*. (New Haven & London: Yale University Press, 1995).

[11] Patricia Leighton has also noted this. See for example, P. Leighton, 'The White Peril and L'Art nègre: Picasso Primitivism and Anticolonialism.' *Art Bulletin*, Vol. LXXII, No.4, December 1990.

[12] As has been demonstrated, Manet's work seems to reference other paintings such as Antoine Watteau's *Le Gilles or Pierrot*, (1721) in the costume and composition of the child figure with a hat, and works such as Paul Gavarni's *Ménage bohémienne*, (1859-60). For more detailed discussion see N. Blake & F. Frascina, *Modernity and Modernism. French Painting in the Nineteenth Century*. (New Haven & London: Yale University Press & The Open University, 1993) pp.82-95.

[13] Wechsler, *op.cit.* p.55.

[14] Juan Gris' works *Head of Harlequin (after Cézanne)* (1916) pencil on paper; *Harlequin* (1918); *Pierrot* (1919); *Standing Harlequin* (1919); *Harlequin at a Table* (1919) all oil on canvas. See Christopher Green, *Juan Gris*. (New Haven and London: Whitechapel Art Gallery, in ass. with Yale University Press, 1992) pp 218, 236, 237, 238 and 239.

Picasso's images of such themes in his post-war work include *Harlequin and Woman with a necklace* (1917) oil on canvas, drawings for the Ballet *Parade* in 1917 including Puncinellas and Harlequin, and his later larger *Harlequin*, (1923) oil on canvas and *Harlequin Musician* (1924) oil on canvas, for example. See Jean Clair, *Picasso: The Italian Journey*. (Thames and Hudson 1998). Picasso engaged with the saltimbanque theme as early as 1900, see Theodore Reff, 'Harlequins, Saltimbanques, Clowns and Fools', in *Art Forum* Oct.1971, pp.30-43. As Reff notes, these entertainers were in fact 'the lowest of several classes-the so-called *postiches* [...who] must perform on a poor rug laid down in a city square or at a suburban fair.' (ibid. p.32). G. Strehly notes that these are the 'failures of the acrobatic profession', (quoted ibid, p.32, original from G. Strehly, *L'Acrobatie et les acrobates*. Paris 1903, p.50). Elsewhere Ellen Bransten notes that Picasso dwells on their exhaustion and pessimism and that 'He piles up every symptom of physical ailment, emphasising the extreme pallor of the skin and the emaciation of the bodies'. E. H. Bransten, 'The significance of the Clown in Paintings by Daumier, Picasso and Rouault.' in *Pacific Art Review*, No.3,1944, p.26 quoted in Reff *op.cit.* p.32.

[15] John Richardson discusses Apollinaire's poetic imagery and Picasso's series of *Saltimbanque* images, see ALP 1, pp.334-339. See also his note 19, page 508, where he suggests that after one of Picasso's engravings was used as frontispiece for André Salmon's *Poèmes* published in 1906, Apollinaire put off publication of his poems until 1913 by which time Picasso had sold the engravings to the dealer Vollard.

[16] Reff, *op.cit.* p.36

[17] Charles Baudelaire, 'On the Essence of Laughter.' First published in *Le Portefeuille*, 8th July 1855, reprinted in *The Painter of Modern Life And Other Essays*. trans.& ed. Jonathan Mayne, (Phaidon, 2001) p.147.

[18] Baudelaire, *ibid*, p.175. Baudelaire had also championed the work of artist-illustrator Constantin Guys who also still had fascination for artists such as Picasso. See for example Picasso's sketch/ caricature of a horseman, of 1905, which he inscribed 'Constantin Guis[sic]', see Richardson, ALP II, p.12 & 13 and, according to Richardson, he also copied Guys' drawings of horses. See Richardson, ALP I, *op.cit*, p. 428.

[19] *Ibid*, p.176.

[20] *Ibid*, p.184.

[21] Apollinaire prepared and prefaced a complete edition of Baudelaire's poems for *La Bibliothèque des Curieux* in 1917, see C.Mackworth, *Guillaume Apollinaire and The Cubist Life*. (John Murray, 1961) p.221. Katia Samaltanos also indicates the interest and impact that Baudelaire had on Apollinaire, particularly his interest in *l'art nègre* and the bizarre. K. Samaltanos, *Apollinaire, Catalyst for Primitivism, Picabia, and Duchamp*. (Ann Arbor, Michigan: UMI Research Press, 1984) p.10.

[22] Wechsler, *op.cit*, p.98.

[23] John Richardson, amongst others, has documented the impact of both Daumier and Toulouse Lautrec on Picasso's work. Richardson, ALP I, p.173. Richardson states that Picasso 'gorged' on the Exposition Universelle's official show of French art that included Daumier's work, and also that 'Picasso seems to have been drawn to Degas, Toulouse-Lautrec and van Gogh, but it is the influence of illustrators rather than *artistes-peintures* that pervades Picasso's first Parisian scenes[...]', see Richardson, (*ibid*) p.173. He goes on to credit Steinlen and Daumier as influences, but also Bottini. George Alfred Bottini (born 1874, Paris) died in 1907, incarcerated in Villejuif asylum, Paris, after going mad and 'knifing' his mother. Richardson states that tertiary syphilis destroyed his physical and mental health. Bottini was a little known painter who was also friend and admirer of Toulouse-Lautrec and Félician Rops, and known to Picasso through intermediaries such as the Catalan artist and member of the *Quatre Gats*, Joaquim Sunyer. (Richardson, *ibid*, note 41, p.496). He notes that Bottini's first exhibition in 1897, *Bars et Maisons Closes* dealt with risqué subjects and the *demimondaines* of Parisian life. These images and Bottini's woodcuts and lithographs he sees as, in part, anticipating the outcasts of Picasso's Blue Period. Richardson also comments that Picasso's work in the early 1900s differs from that of Steinlen or Daumier in that he was less interested in making a social comment than in registering the 'throb of physical passion' (Richardson, *ibid*, p.173). However it could be argued that given his very subject matter, ranging from down and out mad men (*El Loco*, Barcelona, 1904) prostitutes, semi-starving figures, morphiomanes

and addicts of all kinds, that he is indeed making some sort of social comment or statement not least by choosing to represent such ‘characters’ and their social deprivation. Rather Richardson’s point seems more applicable to Picasso’s more erotic and risqué images that seem, ultimately, to engage with promiscuity and unfettered sexual expression which is why he makes the connection between Picasso, Bottini, Toulouse-Lautrec and Felician Rops (whom he describes as a pornographer) and their ‘unabashed approach to sexually explicit subjects’. See Richardson, *ibid*, p.173.

[24] Lautrec first had his work shown as illustrations presented in *Le Courrier Français*, September 1886 and in *Le Mirliton* in December 1886. *Le Mirliton* was the house periodical of Aristide Bruant’s Montmartre cabaret. See Reinhold Heller, *Toulouse-Lautrec. The Soul of Montmartre*. (Munich and New York: Prestel, 1997) p. 27.

[25] Richardson, *ibid*, p 230. Juan Gris also paid tribute to Willette, a leading figure in late nineteenth- and early twentieth-century caricature, in his illustration for the cover of *Le Charivari*, 18 December, 1910, where Willette is shown in Pierrot costume. As Green has noted, Willette was the first to insist on the inadequacy of the term caricaturist for ‘an artists of talent, who produced what is called caricature’. (Green, *op.cit*. p.120). According to Gustav Kahn in 1907, it was Willette who was behind the promotion of the term ‘humouriste’ which was used to designate such artists and which was used in the title for the first *Salon des Humoristes*, organised by the magazine *Le Rire* from 1906. (See Green *op.cit*. p.120 and note 27, p.140). As Green notes, this coincides with Gris’ arrival in Paris and his career as a *humoriste* between 1907 and 1912. It was also a period in which caricature was prominent in France, when books such as *Le Rire et La Caricature* by ‘heavyweight academic’ Paul Gaultier appeared in 1906, as well as work by respected Symbolist and post-Symbolist writers like Gustav Kahn’s *La Femme dans la caricature française* of 1907 and Mécislas Golberg’s *La Morale des lignes* of 1908 added to the case for caricature to be taken seriously. (Green *op.cit*. p.120). The association of caricature with Cubist painting has been addressed by, amongst others, Adam Gopnik and Kirk Varnedoe in *High and Low, Modern Art and Popular Culture*. (New York: The Museum of Modern Art, 1990).

[26] Josep Palau I Farbre makes the comparison between an 1897 poster by Miguel Utrillo *Episode du Jour de l’An à Paris*, subtitled ‘Japoneria’, published in *La Vanguardia* 1st January 1887 and the poster Picasso made for *4 Gats* two years later. See Josep Palau I Farbre, *Picasso Life and Work of The Early Years. 1881-1907*. (Oxford: Phaidon, 1981) pp.120 and 181. Picasso was also variously commissioned to complete other more illustrative works including the front cover for the October 5th 1902 edition of the Catalan newspaper *El Liberal*. Richardson, *op.cit*. p.247.

[27] Richardson, ALP I, *op.cit*, pp.247 & 248.

[28] Le Brun's work *Despair* engraving of 1705, see M. Kemp & M. Wallace, *Spectacular Bodies. The Art & Sciences of The Human Body From Leonardo to Now*. (Berkeley & London: University of California Press & Hayward Gallery, 2000) p100, and Messerschmidt's sculpture *Physiognomic Head (Head Of Character No.18)* 1775, Kemp & Wallace, *ibid*, p.102, plate 236.

[29] Wechsler *op.cit.* p.26.

[30] 'Lavater's physiognomy has created a real science, which has taken its place at last among human knowledge' and 'The laws of physiognomy are exact, not only as they apply to character, but also as they apply to the destined course of life' From Honoré Balzac's *Physiologie du mariage*. (Paris, 1830) cited, Wechsler, *ibid*, p.26.

[31] 'The streets of Paris have human qualities, and such a physiognomy as leaves us with impressions against which we can put up no resistance'. and 'those who savour Paris are so familiar with its physiognomy that they know its every wart, every spot or blotch on its face'. Wechsler, *ibid*, p.28. Original from Balzac's *Histoire Des Trieze* Paris. (Paris: Calmann-Lévy, no date).

[32] BD I, p.27.

[33] For example Thomas Wright, *Histoire de la caricature et du grotesque dans la littérature et dans l'art*. (Paris: Revue Britannique, 1867). See BD I, p. 163.

[34] BD I, p.130. Apollinaire's copy was Rabelais *Oeuvres*. (Paris: Jannet, 1858).

[35] See chapter 4 of this thesis concerning Chagall's *Paris Through The Window* and *Homage à Apollinaire* and brief discussion of Picasso's *Les Demoiselles d'Avignon*. The latter is also discussed in passing in this chapter below.

[36] Rabelaisian ideas concerning laughter have been explored by, amongst others, Mikhail Bakhtin. In *Rabelais and his world*. (Bloomington: Indiana University Press, 1984). Bakhtin notes: 'In Rabelais we see the speech and mask of the medieval clown, folk and carnival gaiety, the defiance of the democratic cleric, the talk and gestures of the mountebank-all combined with humanist scholarship, with the physician's science and practice, and with political experience.' (*ibid*, p.72). G. Mallery-Masters also explores the Platonic-hermetic tradition in Rabelais' writing in *Rabelaisian Dialectic and the Platonic-Hermetic Tradition*. (Albany, New York: State University of New York Press, 1969) in which he also examines the myth of the Androgyne and the conception of world harmony that it represents for Rabelais. This and the dialectic between Platonic and hermetic thought, between intellect and matter, is a theme that is also explored in relation to Marc Chagall's paintings in chapter 4 of this thesis.

Whilst I do not want to overemphasise the impact of Rabelaisian thought on the avant-garde artists under consideration, it is clear he was a figure that interested and appealed to Apollinaire's own sense of 'Renaissance' and humanist idealism, as well as to his more subversive nature in Rabelais' use of obscenity, grotesque imagery and play. It could also be argued that Rabelais appealed to Apollinaire as a quintessential Renaissance man practising medicine and writing literature; combining interests in both arts and sciences. This was something that Apollinaire appeared to be cultivating as part of his own persona in this period. Indeed, as Bakhtin has noted, medicine was, during the Renaissance, not only the centre of

'the natural sciences but of the humanities as well; indeed it was assimilated into philosophy. This phenomenon was observed not in France alone, many famous humanists and scientists of that time were physicians: Cornelius Agrippa, Paracelsus, Cardano, Copernicus.[...] Nearly all French humanists of the Renaissance were to some extent associated with medicine and studied the ancient medical treatises. The dissection of corpses, which was a rare novelty, attracted wide circles of cultured society. In 1537 Rabelais performed a public dissection of a man who had been hanged and accompanied the autopsy by a scientific explanation. This demonstration of the dismembered body enjoyed great success. Etienne Dolet devoted a short Latin poem to the event, in which he praised the good fortune of the executed man: instead of becoming prey of the birds, his corpse helped to demonstrate the harmony of the human body, and the face of the greatest physician of his time was bent over it. Never was the influence of medicine on literature and art stronger than during the Renaissance. (Bakhtin, *ibid*, p359-360)

The impact on the avant-garde of such humanist-scientists listed by Bakhtin will also be addressed in Chapter 4 of this thesis. Equally Rabelaisian ideas concerning the *Grotesque Body* are addressed in Chapter 1 of this thesis.

Apollinaire's own quasi-platonic-hermetic strategy in his writings and the dialectic tension between intellect and material reality, between truth and illusion and between spirit and matter are summed up in Apollinaire's own words on the Douanier Rousseau, 'my ideal of art...truth which is always new. Truth: authentic falsehood, real phantoms', *La Vie*, June 1914. These lines summarize Apollinaire's playful mystification, his fluctuation between fiction and reality and the blending of the serious with the comic. (See Samaltanos, *op.cit*. p.10). This dualism and ambiguity is also present in many of the pictorial works of the avant-garde artists with whom Apollinaire associated. The Neo-Platonic-hermetic dialectic was something that did indeed inform these artists work.

[37] Reff, *op.cit*, p.36 and A. Blunt & P. Pool, *Picasso The Formative Years*. (Greenwich, Connecticut, 1962) p.157-160, quoted in Reff, *ibid*.

[38] Wechsler, *op.cit*, pp.23 & 24.

[39] *Ibid*, p.25.

[40] F. J. Gall, *Anatomie et physiologie du système nerveux*. (Paris, 1818). F. J. Gall's phrenological theories dealt with the study of cranial cavities and

bumps as indices to character and was a popular branch of medicine. Gall's theories were translated into French in 1818 and were used by Balzac and other novelists and illustrators. In *Physiologie du mariage*, Balzac referred to Gall's system as carrying out Lavater's notions more methodologically. Daumier's 'Le Cranioscope-Phrénologistocope', *Le Charivari*, 14 March 1836, caricatured phrenological interest. The accompanying text describes phrenology as a kind of Parisian folly- seeking in external traits the non-existent internal ones. See Wechsler, *ibid*, p.30, and her end note 42, page 183. Apollinaire also owned Balzac's *Le Père Goriot*. (Paris: Calmann-Lévy, no date) see BD I, p.27, which also made reference to physiological and phrenological theories.

[41] Indeed Callen quotes the de Goncourt brothers who stated in 1866 that the 'beauty of the ancient face was the beauty of its lines' whereas 'the beauty of the modern face is the expression of its emotion'. Thus a self conscious adoption of more expressive and physiognomic pictorial strategies aligned the artist with what was 'modern' as opposed to that which was 'ancient'. Original from E. & J. Goncourt, *Journals, mémoires de la vie littéraire*, (9 vols) Paris 1935-6, vol.3, 26; dated 5th March 1866. See Callen, *op.cit*, pp.3 & 4. The Goncourt brother's writings and ideas also continued to be of interest to many of the twentieth century avant-gardists not least via the interests of such people as Apollinaire.

[42] Picasso's inversion of certain pictorial ideals and standard accepted modes of representation is further explored in relation to *Les Demoiselles d'Avignon* 1905 below in Chapter 3.2 of this thesis.

[43] Wechsler, *op.cit.*, p.174.

[44] Paul Gaultier, *Le Rire et La Caricature*. (Paris: Librairie Hachette, 1906) p.229 & 209. Bergson too had written on *Le Rire* and was cited as a source in Gaultier's book. (Henri Bergson, *Le Rire. Essai Sur la Signification du comique*. 1 vol in-16, Paris, nd.).

[45] Callen, *op.cit*, p.5. The work of the Austrian anatomist Franz Joseph Gall (1758-1826) developed the idea of phrenology, 'a philosophy of the mind based on the physiology of the brain'. Gall quoted in Callen, *ibid*, and end note 14, p.213. Phrenology was another popular source for caricatures and lampooning as Rowlandson's famous image 'Dr Gall with Fellow Phrenologists'. (1808) testifies.

[46] William Ewing, *The Body. Photoworks of the Human Form*. (Thames & Hudson, 1994) p.109. See also end note 4, p.422, original quotation taken from André Jammes 'Duchenne de Boulogne, La Grimace Provoquée, et Nadar' in *La Gazette des Beaux Arts*, No. 92, Dec.1978. Ewing also notes that *Photographic News* commented in July 1859 that Boulogne's method resulted in 'living anatomy'. Darwin also used Duchenne's work to illustrate *The Expressions of the Emotions in Man and Animals*. (1872). Dr Guillaume-Benjamin Duchenne's work *Mécanisme de la*

physionomie humaine ou analyse électro-physiologique de l'expression des passions, was published in 1862.

[47] Ewing, *Ibid*.

[48] J. M. Torres and F. J. Sancho, 'La Andalucía Médica: The First Journal of Medical Photography in Spain' in *History of Photography*, vol. 12, No2, April-June 1988. pp161-163

[49] Buffon quoted in Bindman, *Op.cit*, p.64

[50] *Ibid*.

[51] *Ibid*, p.66

[52] Philippe Comar, *The Human Body. Image and Emotion*. (Thames & Hudson, 1999) pp.32 and 33.

[53] David Cohen, 'Identity and Alterity': Figures of the body 1895-1995- the Venice Biennale' in *Apollo*. Oct. 1995, Vol.CXLII, No.404, p.54 . Callen, *op.cit*. J. Clair, & M. Brusatin, et al, *Identity and Alterity. Figures of The Body 1895-1995 La Biennale di Venezia. 46 Esposizione Internazionale d'Arte*. (Marsilio, 1995).

[54] Bertillon's measurements were of bony areas of the body that do not change once the subject has reached maturity; for example the length and width of the head, length of forearm, height, both standing and sitting, size and shape of ears, nose, tabulation of scars and any peculiar marks and features. He also standardised the procedure of photographing the subject. See T. G. Cooke, *Fingerprints. Secret Service Crime Detection*. (Chicago: Fingerprint Publishing Association, 1932) pp.35 & 36 and Ewing, *op.cit*, p.19.

[55] Bertillon testified as one of the police handwriting experts in the trial and conviction of Captain Alfred Dreyfus for high treason in 1894. See J. Crépieux-Jamin, *L'Expertise en Ecriture et Les Leçons de l'Affaire Drefus*. (Paris, 1907). Published extract from the journal *L'Année psychologique*. Tome XIII, (Paris: Masson et Cie., 1907). Although as Crépieux-Jamin notes, Bertillon was not a handwriting expert. See *Ibid*, p.202.

[56] H. Rhodes, *Alphonse Bertillon. Father of Scientific Detection*. (London, Toronto & Sydney: George G. Harrap & Co. Ltd. n.d.) pp.117-118.

[57] *Ibid*, p.112-114.

[58] J. Charlat Murray, *Picasso's Use of Newspaper Clippings in His Early Collages*, unpublished MA thesis, Columbia University, p.56 of microfilm, also as cited in E. A. Carmean Jr. 'Juan Gris' "Fantômas" in *Arts Magazine* January 1977, p.118 and note 21, page 119. Also see *Le Matin*, 3rd Feb. 1914, p.1.

[59] In Marcel Allain and Pierre Souvestre's *Fantômas. The Legendary Novel of Mystery and Romance*. trans. John Ashberry, (Pan Books, 1987). (First published 1911) p.72, is the first reference to M. Bertillon and the invention of his 'dynamometer'. On p.207, Bertillon's dynamometer is referenced in proving the innocence of one of the characters, 'Charles'. Inspector Juve goes on to mention 'obtaining the anthropometric records of the body...' and on p.248 anthropometrics are again discussed and the physiognomy of the 'criminal face' with a description of the criminal type. On p.250 a consideration of the 'mental type' is explored. This evidence of medical discourse in such popular cultural texts is just another example of the widespread dissemination of such ideas that were enthusiastically embraced by avant-gardists such as Apollinaire, Picasso, Francis Picabia and others.

[60] Robin Walz, amongst others, has noted that Apollinaire included two *Fantômas* poems in the 1916 collection *Le Cornet à dés*. Apollinaire also briefly reviewed the *Fantômas* novels in *Mecure de France* in 1914 declaring they were richly imaginative. (G. Apollinaire, 'Fantômas' *Mecure de France*, 16 July 1914. p.422-3). Blaise Cendrars wrote in 1914 that *Fantômas* was the 'modern Aeneid', and Maurice Raynal wrote in Apollinaire's own *Les Soirées de Paris* that Feuillade's *Fantômas* film was 'saturated with genius'. (Waltz gives reference to this as M. Décaudin 'Les Poètes découvrent le cinéma' in *Surrealisme et Cinéma*, No. 77, no date.) See Robin Walz, 'Serial Killings. *Fantômas*, Feuillade and the Mass-culture Genealogy of Surrealism' in *The Velvet Light Trap: A Critical Journal of Film and Television*. No.37, March 1996, pp 51-57. Suzi Gablik has also noted that Feuillade's film *Fantômas* was Apollinaire's favourite film. She also documents the impact of *Fantômas* on Magritte's oeuvre, see S. Gablik, *Magritte*. (Thames & Hudson, 1985) p.47. Apollinaire owned a copy of the collected stories of *Fantômas*, see BD 1, p.147. Gris's painting of *Fantômas, Pipe and Newspaper*. (1915) obviously has a direct and explicit reference to the character but also the 1914 collage *Figure Seated In a Café*, which indirectly references Bertillon and the *Fantômas* stories. The idea of disguise and identity, of contradiction and ambiguity is one that permeates the fictional world of *Fantômas* and obviously appealed to those avant-gardists who were practising a heady mix of punning, ambiguity of meaning and hermetically coded language in their poetry, collages and painting.

[61] Carmean op.cit, p.118.

[62] R. Rosenblum, 'Picasso and the Typography of Cubism' in *Picasso In Retrospective*. (New York: Praeger, 1973) pp.64-65. Cited Carmean, op.cit. p.118 and note 26, p.119.

[63] D. Pick, *Faces of Degeneration: A European Disorder. C.1848-1918*. (Cambridge: Cambridge University Press, 1989) p.97. Pick notes that Emile Durkheim used medical analogies of sickness and health and 'new categories of heredity, pathology and nervousness such as neurasthenia to explain social phenomena'. Robert Nye demonstrates the pervasiveness of the medical model

of national decline in his text *Crime, Madness and Politics in Modern France. The Medical Concepts of National Decline*. (Princeton, New Jersey: Princeton University Press, 1984). On p.134 he notes that the 'primary reason for the appeal of an essentially medical model of health was its appropriateness for a nation whose vital statistics revealed several alarming trends.' Here he is referring to the rapid decline in population growth in France since 1870s, as well as to the rise in statistical evidence of disease (syphilis and tuberculosis) and insanity.

[64] Nye notes that 'some of these worrisome trends were strictly medical in nature. In the 1890s [...] just as victories over cholera and smallpox were being claimed, tuberculosis and syphilis became grave concerns.' *ibid*, p.135. He goes on to note that doctors and members of the hygiene professions wrote about the dangers of such diseases to the 'social organism.' Alcoholism too was singled out as another threat to the French nation state.

[65] Pick, *op.cit.* p.126. Pick also notes that 'Lombroso harnessed phrenology [...] to a specifically evolutionary theory of racial development. He charted the physical differences in brain and body between groups of the Italian population which he had already split-off and designated according to their social 'savagery'.' *ibid*, p.113.

[66] R. Harris, *Murders and Madness: Medicine, Law & Society in the Fin De Siècle*. (Oxford and New York: Oxford University Press, 1989) p.68. Charles Féré's text 'L'Hérédité Morbide' appeared in *Revue des Deux Mondes* No.126, 1894.

[67] *Ibid*, p.69.

[68] *Ibid*.

[69] C. Bernaldo De Quirós, *Modern Theories of Criminality*. (trans. from Spanish by Alfonso de Salvio) (London: William Heinemann, 1911, first published 1898) p.IV.

[70] Pick, *op.cit.* p.94. A similar case can be made for certain early twentieth century avant-garde paintings seemingly connecting their representation of 'the body' to the historical and socio-political milieu in which the artist was operating. See section 3.2 below concerning Picasso's *Les Femmes d'Alger (O. J. R. M.)* and Matisse's *Blue Nude. Souvenir de Biskra*.

[71] De Quirós, *op.cit.*

[72] Dr Georges Genil-Perrin, *L'Idée de Dégénérescence En Médecine Mentale*. (Paris: Alfred Leclerc, 1913). Bénédict-Augustin Morel was a French psychologist working in the nineteenth-century, whose ideas of 'degeneration' developed, in part, from a physiological model, reinforced by Darwinian ideas, that degeneration was an organic disability, passed on by heredity and with specific physiological and psychological manifestations such

as abnormal cranial development, abnormal genital development, insanity, alcoholism and excessive sexual drive. See Shearer West, *Fin-de-Siècle Art and Society in an Age of Uncertainty*. (Bloomsbury, 1993) p.17.

[73] Harris, op.cit. p.69.

[74] Pick, op.cit, p.74.

[75] From the start of the novel's prologue, the author reinforces the degenerate nature of Des Esseintes, and by extension, the individual case of this man and his family's heredity degeneracy and sickness reflects the contemporary perception of society as a whole as in decline and increasingly degenerate. On the opening page of *A Rebours* appears a description of a family portrait that draws heavily on physiognomic descriptions of degeneracy and the author continues; 'In this picture [...] the defects of an impoverished stock and the excess of lymph in the blood were already apparent. Since then, the degeneration of this ancient house had clearly followed a regular course, with the men becoming progressively less manly; and over the last two hundred years, as if to complete the ruinous process, the Des Esseintes had taken to intermarrying among themselves, thus using up what little vigour they had left.' J-K. Huysmans, *Against Nature*. English trans. R.Baldick, (Penguin Books, 1959) p.17.

[76] The French edition, Max Nordau *Degenerescence*, appeared in 1894 and its citing of French Symbolist poets and painters, and esoteric cults such as Cabala as degenerate would have been of interest to figures such as Apollinaire, indeed according to Bates, he reported on Nordau's views in 1904. See Scott Bates, *Guillaume Apollinaire*. (New York: Twayne Publishers, 1967) p.25. Bates also notes that Apollinaire knew Lombroso's theories on madness and genius, but he doesn't give any details of how the poet knew such theories. (ibid, p.48) However it was a collection of theories that had permeated throughout society by the early twentieth century and as a set of epistemological assumptions was part of a wider discursive 'knowledge' concerning the degenerate that appeared in more popularist form, in art criticism and discussion (for example Octave Uzanne's discussion of Lombroso and his theories in 'Artists and bluestockings', *The Modern Parisienne*. (Heinemann, 1912) pp.125-33, and also the type of magazines and journals owned by Apollinaire of a more medico-scientific nature (*Aesculape*, *La Chronique Médical* etc) would have been another source of information on such ideas.

[77] George L. Hersey, 'Max Nordau', in *The Evolution of Allure: Sexual Selection from the Medici Venus to the incredible Hulk*. (Massachusetts: MIT Press, 1996) p.134.

[78] Max Nordau, *On Art and Artists* . (London, 1907) p.279, as cited Hersey, ibid, p.135.

[79] Nordau stated that:

‘ [Impressionism] becomes at once intelligible to us if we keep in view the researches of the Charcot school of the visual derangements in degeneration and hysteria. The painters who assure us that they are sincere, and reproduce nature as they see it, speak the truth. The degenerate artists who suffers from nystagmus, or trembling of the eyeball, will in fact, perceive the phenomena of nature trembling, restless, devoid of firm outline’.

Max Nordau, *Degeneration*. (1892) p.24, as quoted Hersey, op.cit, p.137.

[80] Samaltanos, op.cit, p.86. Samaltanos notes that Apollinaire’s response to Dr Artault’s article which appeared in *La Revue sans Titre*, was published in *Paris Journal* May 15, 1914, the article also appears in BR, pp.384 & 385. In this article Apollinaire also mentions Lombroso stating that Lombroso and his imbecile Italian colleagues thought everyone around them was either sick, crazy or degenerate.’, BR, ibid.

[81] Dr V. ‘Cubisme, Futurisme et Folie’ *Le Journal*, 7 Nov, 1912, p.6.

[82] Nordau states ‘Does he [Zola] think that his novels are serious documents from which science can borrow facts? What childish folly! Science can have nothing to do with fiction.’ Nordau, *Degeneration*, op.cit, p.489, as quoted Pick, op.cit. p.78.

[83] Pick op.cit. p.85

[84] Ibid, p.86.

[85] Pick has shown that women were considered agents of ‘degeneration either (in various eugenic views) by bringing new pathological cases into the world or [...] by failing to reproduce in sufficient quantity healthy children for the nation, [women] were also seen as peculiarly violent and atavistic in gatherings’ and such ‘sexual conduct [as prostitution] and the consequences of human reproduction [...] were seen to be critical political issues, since they involved the potential bio-social degradation of France’. Pick, op.cit, pp.89 & 90.

[86] Callen, op.cit, p.49.

[87] Gustav Le Bon for example, ‘ a notorious misogynist, medical doctor, anthropologist, populariser of science[...] dabbled in a wide variety of contemporary science, psychiatry and anthropology; he attended Charcot’s lectures on hysteria and was a keen contributor to the parisian *Society of Anthropology* and its journal. Le Bon also ventured into the field of craniometry where he found men’s brains bigger than women’s and civilised brains bigger than those of ‘savages’.’ Pick, op.cit. p.90. Brain size was a physiological factor that was used by such scientists and doctors to reinforce the analogy between race and gender. Female smaller brain size was readily equated with the smaller brain size of ‘lower species’ apes in particular, and in turn equated with so called ‘inferior’ races, the African for example. See Paul

Broca, 'Sur la volume et la forme du cerveau suivant les individus et suivant les races' in *Bulletin de la Société d'Anthropologie*. Paris, No. 2, 1861, and A. Sutherland, 'Women's Brain' in *Nineteenth Century*. No.47,1900, pp.802-810.

[88] Gilbert Ballet, a leading medico-legal psychiatrist states that 'Individuals whom Doctors, rightly or wrongly call *degenerates* are people who have malformed [mal ourlées] ears, a squint, bad teeth, and, in short, can be recognised as abnormal by certain outward defects...' G. Ballet, 'Traitment à appliquer aux délinquents à responsabilité limitée', in *Revue Pénitentaire*. No.29, 1905, p.202-3, as quoted Harris, op.cit., p.96. Lombroso's texts on delinquency and degeration appear from 1876; *L'uomo delinquente studiato in rapporto alla antropologia, alla medicina legale ed alle discipline carcerarie*. (Milan, 1876); *L'Homme Criminel*. (appears in French, 2nd edition 1895); *Genio e follia in rapporto alla medicina legale, alla critica ed alla storia*. (Turin, 1882). Pick lists a fairly comprehensive overview of Lomroso's writing in his bibliography, Pick, op.cit, p.247.

[89] R. Nye, 'Degeneration and the medical model of cultural crisis in the French Belle Epoque' in Drescher, Sabean and Sharlin (eds), *Political Symbolism in Modern Europe*. (New Jersey, 1982) pp.19-41, as cited Harris, op.cit. p.75.

[90] On Morel see Pick, op.cit, pp.44-50.

[91] Nye, op.cit. p.156.

[92] Pick, op.cit. p.167.

[93] Ibid, p.167.

[94] Ibid, p.168. Other authors have also addressed the connection of the novel to contemporary fears of diseases such as syphilis. See Alexandra Warwick, 'Vampires and the empire: Fears and Fictions of the 1890s' in S. Ledger and S. McCracken, *Cultural Politics at the fin-de-Siècle*. (Cambridge: Cambridge University Press, 1995) p.209.

[95] Pick, op.cit.p.171.

[96] Bram Stoker, *Dracula*. (Wordsworth Editions, 1993) (1st published 1897) p.159. One character (Seward) agrees that Charcot has proved the affectiveness of Hypnotism. Charcot and Hypnotism are addressed also in Chapter five of this thesis.

[97] Ibid, pp.284 & 285.

[98] Pick, op.cit. p.172, and Lombroso quoted on p.172 of Pick, taken from, C Lombroso, *Criminal Man*. (1911) p.xv.

[99] The anti-semitic references in the novel have also been addressed by Judith Halberstam in 'Technologies of monstrosity: Bram Stoker's *Dracula*', in Ledger and McCracken, op.cit. chapter 12. She addresses the multiaccentuality of *Dracula* and shows he represents 'a composite of otherness that manifests itself as the horror essential to dark, foreign and perverse bodies.' Halberstam, ibid, p.250.

[100] Stoker, op.cit, p.33.

[101] Just as in Huysmans' *A Rebours* the male degenerate is seen to be 'less manly', the gender roles ascribed by society are undone or reversed in the degenerate persona.

[102] R. Frost 'Virgins and Vampires' in *The English Review*, Vol.13 No1 Sept. 2002, p.29.

[103] Pick, op.cit. p.155. Conan Doyle's *The Lost World* also articulates the concern with atavism and degeneration and echoing the nineteenth century physiognomists describes the 'ape-man' thus: 'Only above the eyebrows, where the sloping forehead and low, curved skull of the ape-man were in sharp contrast to the broad brow and magnificent cranium of the European, could one see any marked difference'. (Conan Doyle, *The Lost World*. (1912) p.124, quoted in Pick, op.cit, p.156.) Conrad's *The Secret Agent*. (1907) also makes direct reference to Lombroso, and despite the ridicule and attack on Lombroso in part of the book, one character turns towards Lombroso's theories to save himself:

He was scientific and he gazed scientifically at that woman, the sister of a degenerate, a degenerate herself-of a murdering type. He gazed at her, and invoked Lombroso, as an Italian peasant recommends himself to his favourite saint. He gazed scientifically. He gazed at her cheeks, at her nose, at her eyes, at her ears...Bad!...Fatal! Not a doubt remained...a murdering type...

(Joseph Conrad, *The Secret Agent*. (1907) p.239 quoted Pick, op.cit. p.160) Apollinaire owned this text, Joseph Conrad, *L'Agent secret. Simple histoire*. trans. Henry D. Davray, (Paris: Mercure de France, 1912). See BD I, p.49. Apollinaire's interest in detective-crime genres has been mentioned above and the themes of a medico-scientific nature were also apparently of interest to him in fictional narratives as well as in his extensive collection of non-fictional medico-scientific journals, books and articles. As a disseminator of ideas and themes to his contemporaries, both writers and artists, this is worthy of attention.

[104] The list of Wilde texts owned by Apollinaire appears in BD I, pp.161 & 162 and includes *The Portrait of Dorian Gray*.

[105] Pick, op.cit. p.167.

[106] West, op.cit, p.20.

[107] *ibid.*

[108] *ibid.*

[109] Ted Gott, 'Eugène Grasset' in J. Kinsman, M. Bascou, and T. Gott, *Paris In The Late Nineteenth Century*. (London, Paris and Canberra: Musée D'Orsay & The National Gallery of Australia, Thames & Hudson, 1997) p.146.

[110] *ibid.*

[111] *ibid.* Gott quotes from Fiedler (1875) pp.16-17, in Y. Pélicier and G. Thuiller, *La Drogue*. (Paris: Presse Universitaire Française, 1972) who praises the drugs ability to release intellectual powers of both a scientific and artistic nature, setting the imagination free. Gott also quotes from a contemporary novel by L.de Robert, *L'enver d'une courtisane*. (Paris: Ollendorf, 1889) where the author sees use of morphine as 'elegant refinement' of 'rich pleasure'. Later comentary was less enthusiastic and particularly sexist; in Paul Rodet's *Morphinomanie et Morphinite*. (Paris: Alcan, 1897) p.41 the author states that ' All the cohorts of Cythera and Lesbos, society ladies, artists, courtisans of every class, every neurotic woman, every unbalanced woman- all of them sacrifice themselves on the altar of Morphine. Their number is beyond calculation.They are legion!'. Gott, *ibid*, p.146.

[112] Rusiñol's painting is reproduced in Richardson, ALP I, p.114. Richardson also notes that Rusiñol, a Catalan bourgeoisie and part of the Spanish *modernista* movement, although not confined to painting alone (he also wrote poetry, was a dramatist, actor, journalist, impresario, and collector) had, according to Richardson, a considerable impact on Picasso, particularly in fuelling his morbid Spanish preoccupations: gloom, disease and death. Indeed Rusiñol himself had to be treated for morphine addiction. See Richardson, ALP I. pp.113-115.

[113] Richardson, A.L.P I. p.266.

[114] *Ibid*, pp.312-314.

[115] *Ibid*, pp.320-321.

[116] Carol Mann, *Modigliani*. (Thames & Hudson, 1980 & 1993) p.204. Mann has also noted it was Dr Paul Alexandre who had provided models for Modigliani early on in his career-these were in fact the prostitutes who went to Dr Alexandre for cures for venereal disease. See Mann, *ibid*,p.139. Modigliani's nudes of 1908 reveal the emaciated and ill looking bodies of the models/prostitutes.

[117] Richardson, ALP I, pp.320-321. Salmon's book *La Vie passionnée de Modigliani* written in 1926 published in 1957, Paris, as quoted in Mann,

ibid,p.34 and in bibliography, p 208. It was the suicide in 1908 of the German painter G. Wiegels, who had moved to the Bateau Lavoir in 1905/6, that apparently stopped the opium-evenings that Picasso and Fernande indulged in. After taking an overdose (of either opium, ether or hashish) he hanged himself. Picasso saw the body and the shock apparently made he and Fernande give up opium smoking, but as Richardson points out, the other poets and painters in Picasso's circle continued. See Richardson ALP I, p.324.

[118] Max Nordau, *Degeneration*. English Trans.(London, 1895) p.476, as quoted West, op.cit. p.21.

[119] Nye, op cit. p.158.

[120] Alain Corbin, *Women For Hire. Prostitution and Sexuality in France after 1850*. trans.Alan Sheridan, (Cambridge, Massachusetts: Harvard University Press, 1990) p.130.

[121] Ibid, p.298.

[122] Ibid, p.301.

[123] For example see Steinlen's caricature cover illustration 'Hilarity' for *Gil Blas illustré* 14 April, 1895, reproduced in Phillip Dennis Cate & Bogomila Welsh-Ovcharov, *Emile Bernarde Bordellos and Prostitutes In Turn-of-the-Century French Art*. (Rutgers, New Jersey: The State University of New Jersey, 1988) p.5; Toulouse Lautrec's 'Sur le Pavé: Quel âge as-tu, petite?' (1886) for *Le Mirliton*, reproduced in Reinhold Heller *Toulouse-Lautrec: The Soul of Montmartre*. (Munich and New York: Prestel, 1997) p.40 and Edward Ancourt, 'On the boulevard' *Le Monde Comique*, 1875-76, reproduced in Hollis Clayson, *Painted Love: Prostitution In French Art Of The Impressionist Era*. (New Haven & London: Yale University Press, 1991) p.98.

[124] Clayson, ibid, p.5.

[125] Nye, op.cit. p.158.

[126] Ibid, p.160.

[127] Original from A. Fouillée, 'Dégénérescence: Le Passé et le présent de notre race' in *Revue des deux mondes*, No.131, 1895, p.821 as quoted in West, op.cit. p.19. West goes on to note that even dancing was seen as a modern form of madness in the 1890s when the dances at the popular café-concerts were compared to the frenzied movements of the hysteric patients at the Salpêtrière hospital. West, ibid. Original from Supplement to *Echo de Paris*, 9th December 1893, cited A. Fermigier, *Toulouse-Lautrec* (London, 1969) p.80.

[128] Claude Quétel, *History of Syphilis*. trans. J Braddock & B.Pike, (Cambridge and Oxford: Polity Press & Blackwell publishers, 1990) p.7.

[129] Quétel, *Ibid*, p.135. In 1889 the first international congress on dermatology and syphilis was held at the Hôpital Saint-Louis where Fournier worked. Fournier set up the *Société Française de Prophylaxie Sanitaire et Morale* in 1901.

[130] Jean Goens addresses the topic of syphilis in literature in *De La Syphilis Au Sida. Cinq siècles des mémoires littéraires de Vénus*. (Bruxelles: Presses Interuniversitaires Europeennes, 1997).

[131] Quétel, *op.cit.* p.124.

[132] *ibid*.

[133] Toby Gelfand, 'Medical Nemesis, Paris, 1894: Léon Daudet's *Les Morticoles*.' in *Bulletin of The History of Medicine*. No.60, 1986, p.157, note 6 and p.170, note 51. The novel was first published by Charpentier in Paris, later editions by Fasquelle in 1925, 1939 and 1956. Gelfand notes last publication was in 1984 by Bernard Grasset, Paris.

[134] *Ibid*, p.161 & 162.

[135] Bradilon is described as injecting Guinea pigs with lethal cholera germs; artificial epilepsy is produced in dogs; the skull of a bird has been replaced with a glass lens through which pulsing red arteries can be seen; a Kangaroo is tortured by experiemnts including injections of small pox, glanders and kept for ten days in a mercury bath and finally the Doctor produced an artificial syphilitic gumma on humans and replaces part of a human brain with that of a dog's. See Galfand, *ibid*, pp.165 & 166. The rampant vivisectionism and cruelty in Daudet's caricature anticipate H. G. Wells's Dr Moreau in *The Island Of Doctor Moreau* of 1896, which is further discussed in this thesis in chapter two. It also appears to makes reference to the work of Dr Elie Metchnikoff (1845-1916) Russian bacteriologist and zoologist who came to work in Paris at the Institute Pasteur in 1888 where he was later appointed *chef de service* in 1892, later to become director, and working with Dr Emile Roux, used monkeys in experimental research for syphilis immunology. (See Quétel, *op.cit.* p.140 and note 14, page 296, and *Larousse Mensuel*. No.116, October 1916, p.902) Dr Pierre Emile Roux (1853-1933) was elevated to the Academie des Sciences in 1899 after his development of a treatment for diphtheria with serum from a horse (*sérothérapie*) researched published, in conjunction with Louis Martin and Chaillon, in 1894. For more detail on Roux's work on diphtheria see Paul J. Weindling, 'Emile Roux et la diphtérie' in M. Morange (ed), *L'Institut Pasteur contributions A Son Histoire*. (Paris: Editions Decouverte, 1991) pp.137-143. Roux and Metchnikoff began experimental studies of syphilis in 1903 innoculating chimpanzees with mercuruous chloride. Reports of the research were published in newspapers of the time. A notable example is the

report, dated Tuesday 28th August 1903 with accompanying photograph of the two doctors with a chimpanzee, called 'avarié' named after Brieux's play 'Les Avariés' of 1901, presenting the chimpanzee, who was inoculated with syphilis, to the Académie de Médecine. See E. Hausser, *Paris au jour le jour...* (Paris, 1968) p.135. Rabbits were used from 1906 onwards, but the use of animals in medico-scientific experiment was a feature of nineteenth and early twentieth century research, despite gathering public criticism, notably from proto-feminist, anti-vivisectionist and journalist Séverine, who praised Daudet's novel. See Séverine, 'Opinions: Les Morticoles.' 26th July 1894, quoted Gelfand, op.cit, p.172 and footnote 62.

Daudet's veiled reference to Charcot was just one example of such references that pervade his writings. Daudet's father, Alphonse dedicated a novel to Charcot, *L'Évangéliste* (1883). Charcot was Alphonse Daudet's neighbour and doctor, and the two families were close for some time before the Daudet's became disillusioned with Charcot's treatment of Alphonse, who was suffering from locomotor ataxia. Daudet's ambivalence toward Charcot stems from this, it seems, but he was also representing the ambivalent feelings, long held by the general the public towards the medical profession. See Gelfand, op.cit. p.166.

Daudet's own antisemitic, right wing and rabid nationalism could also be seen to inform the novel's rhetoric. The threat to *la vieille France* from modernisation, from medical domination or the so called 'Jewish peril' became interchangeable symbols of widespread fears about the the complex transformations that threatened French society. However Daudet's ideological position was somewhat inconsistent, his friend the writer Marcel Schwob, was Jewish and later a Dreyfusard. The novel appealed to a wide audience of dissidents, from both the political left as well as right 'united only in their opposition to the Republic [...and] which denounced the bourgeois liberalism of the Third Republic for its perceived alliances with liberal professionals and scientists, industrial capitalists and the Jews.' (Ibid, p.169.) Marcel Schwob was also an associate of Apollinaire's and an influence on the poet's writing. Apollinaire also owned a copy of Léon Daudet's book, *L'Hérédo. Essai Sur le drame intérieur*. (Paris: Nouvelle Librairie Nationale, 1916). The copy he owned had a dedication to Apollinaire from Daudet, see BD I, p.52.

[136] Gelfand cites *Le Figaro*, 6th June 1894; *Le Matin*, 7th June 1894; *L'Echo de Paris*, 7th June; *La Libre Parole* 11th June and *L'Eclair* 19th June. Edmond de Goncourt, intimate of Daudet's father Alphonse, praised the manuscript; Zola acknowledged the qualities of the novel, but did not like its 'esprit'; Théodor de Wyzewa (1862-1917) leading avant-garde critic also admired the novel. See Gelfand, op.cit. pp.170 & 171.

[137] For example, *L'Assiette au Beurre*, 'L'Art Nouveau', 28th September, 1907, features a cover with a jar containing a curvilinear figure and the caption 'Bacillus/c: Ars Nova'. Other editions of the satirical journal dealt with 'Les Médecins', 'Les Ecorcheurs', 'Les Avariés', 'Les Pharmaciens' and so on. Artists working as illustrators for this journal included certain avant-garde artists such as Kupka, Gris, Van Dongen, and Jacques Villon as

well as more well known illustrators such as Abel Faivre, Willette, Steinlen, Galanis, Bellery-Desfontaines and Chéret.

[138] Quétel, op.cit. p.137.

[139] Dr Emile Laurent, 'Pathologie. Prostitution et Dégénérescence' in *Annales Médico-Psychologiques. Journal de L'Aliénation Mentale et de La Médecine Légale des Aliénés*. Tome.X, Novembre 1899, p.356. On p.361 Laurent states, 'Ces statistiques et ces faits semblent prouver qu'il y a des prostituées-nées, comme il ya des criminels-nés.' Laurent's work also cites Krafft-Ebing's *Traité de psychiatrie* (ibid, p.360.) and uses the correlation between cases of tuberculosis and mental and nervous illness found in numbers of prostitutes as yet another sign of their degeneracy and to reinforce the idea of the 'born-prostitute'.

[140] Ibid, p.369. Amongst the list of physical abnormalities to be found in prostitutes were; snub nose, jug-ears, defect in teeth alignment, cross eyed, receding chin, sloping forehead, skull deformity, elongated or compressed at temples, hydrocephalic forehead, deformed ears and 'parrot teeth'. Laurent notes that Tarnowsky states that prostitutes often have graceless limbs, pale or yellowing skin and a tendency towards plumpness amongst other things. He also brings a racial element to his evaluation when on pp.374 & 375 Arab prostitutes are discussed and seen as even more degenerate and inhuman than European prostitutes. This has some bearing on the iconography of Matisse's *Blue Nude* (1907), discussed below.

[141] For example see Dr Emile Laurent, 'Sadisme et Masochisme' in *La France Médicale*, no.12, 1903. p.LVIII. (Apollinaire owned a copy of this edition, see BD II)

[142] For example, Dr Paul Richer, 'Du rôle de l'anatomie dans l'histoire de l'Art' *La France Médicale*, no11 1903, p.313.; 'Histoire de la syphilis. La syphilis inoculée aux singes anthropoides' no author, *La France Médicale* 1903, p.347.; Dr Rapheal Blanchard, 'Les maladies vénériennes dans l'art' in *La France Médical*, vol.12,1904, p.1, 24, 42 & 108.; Dr Paul Delaunay 'Les médecins au théâtre-Notes d'histoire de la pharmacie à Avignon- Toujours le microbe de le syphilis', in *La France Médicale* vol.182,1905, p.210. The list goes on, from medical inventions such as the laryngoscope, or X-rays, to diseases such as tuberculosis to medical history, spiritualism or the arts, writers (Remy de Gourmont for example) and Doctors (including psychiatric doctors such as Babinski) all contributed to the diverse topics presented in such periodicals.

[143] Quétel, op.cit. p.140. Schaudinn, a zoologist and Hoffmann, a syphilologist are credited with its discovery.

[144] Ibid, p.141.

[145] Ibid.

[146] Ibid, pp.142 & 143.

[147] Ibid, p.144. Alfred Fournier's pamphlet, *Pour nos fils quand ils auront dix-sept ans*, draft published in 1902, states that young men should beware 'feminine provocation' and how dangerous the clandestines are, 'these bogus little factory girls who pace up and down the boulevard pretending to put off going back to work!' The venereal peril is described at length and syphilis is described as that which ruins marriages, families and kills children and debases the species. (ibid.)

[148] Quétel, op.cit. pp.145 & 146. Quétel outlines works by Paul Vérola, *L'Infamant* . (1891) André Couvreur, *Les Mancenilles*. (1900) and Michel Corday's *Vénus*. (1901).

[149] Ibid, p.146. Corday's novel was republished as *Vénus ou Les Deux Risques*. (1901).

[150] It was in his novel *Les Demi-fous*. (1905), that Corday set out his idea of the 'physiological novel' in the foreward, dedicated to Professor Lacassagne. It was a plan to mix art and science and provide a formula for improving the human race. (Quétel, ibid, note 27, page 297)

[151] Ibid, p.147.

[152] Théâtre Antoine, named after its founder and director André Antoine (1858-1943) who was known to Apollinaire. Apollinaire comments on the theatre in 'La Vie Anecdotique' *Mecure de France*. 16 May 1914, and notes a portrait of Antoine by Georges Lacombe exhibited at the 1912 Salon d'Automne. (written report by Apollinaire, *L'intransigeant*. 2nd October 1912). See Apollinaire *OC*, Vol. II, p.480 and 1227 and Vol III p.197. The ban of Brieux's play drew criticism from the medical profession and journals, such as *La Chronique Médicale*. (another medical/arts journal that Apollinaire owned copies of). A special issue of the journal was produced in which Professor Fournier was given free reign to express his criticism of the ban. See Quétel, op.cit. p.157. It is not implausible then to suggest that the topic of syphilis and Brieux's play would have been something that Picasso was aware of when he began his sketches for *Les Demoiselles d'Avignon* in 1906. It is also of note that Apollinaire owned a copy of *La France Médicale* Vol.182, Jan.1905 in which Dr Paul Delauney reviewed the work of Metchnikoff and Roux and their experimental work on a cure for syphilis.

[153] Quétel, op.cit, p.158 .

[154] See for example Dr O.Commenge, *La Prostitution clandestine à Paris*. (Paris: Librairie C. Reinwald, 1904) second edition, first edition published 1896. Dr Commenge's text examines the causes of *prostitution clandestine*, citing *bals publics*, *bals champêtres*, *fêtes locales* and private appartments as places where clandestines operated, (p.6 & p.13) Causes, such as *vagabondage*

(p.6) and absence of morality (p.101) amongst other things are discussed as well as the covert advertisements placed by prostitutes in newspapers and periodicals such as *Gil Blas*, (p.38).

[155] These ideas of discursive constructs are owed, in part, to Foucault and his writing concerning medicine and the body is critically examined in Colin Jones & Roy Porter, *Reassessing Foucault: Power, Medicine and The Body*. (Routledge, 1994).

[156] Alphonse Bertillon, *Les Races Sauvages*. (Paris: Libraire de L'Academie de Médecine, Masson, 1882) pp.40 and 41.

[157] For the 'primitivization' of the Irish see L. Curtis, *Apes and Angels. The Irishman in Victorian Caricature*. (David & Charles, 1971); For the negative image of the African in French culture see C. Miller, *Blank Darkness: Africanist discourse in French*. (Chicago: University of Chicago Press, 1985); Jan Nederveen-Pieterse, *White on Black. Images of Africa and Blacks in Western Popular Culture*. (New Haven & London: Yale University Press, 1992) and W. H. Schneider, *An Empire for The Masses. The French Popular Image of Africa, 1870-1900*. (Westport, Connecticut & London: Greenwood Press, 1982).

[158] Quétel op.cit. p.195.

[159] For an informative and interesting view on 'Primitive discourse' see Mariana Torgovnik, *Gone Primitive. Savage Intellectuals, Modern Lives*. (Chicago: University of Chicago Press, 1990). The discussion of primitivism and avant-garde art is addressed in R. Goldwater, *Primitivism in Modern Art* Cambridge, Massachusetts: Harvard University Press, 1938 & 1986); F. Francina et al, *Primitivism, Cubism, Abstraction*. (New Haven & London: Yale University Press & The Open University, 1993); S. Hiller, *The Myth of Primitivism*. (Routledge, 1991); Sally Price, *Primitivie Art in Civilized Places*. (Chicago: University of Chicago Press, 1989); Colin Rhodes, *Primitivism In Modern Art*. (Thames and Hudson, 1994); William Rubin, *'Primitivism' in 20th Century Art: Affinity of the Tribal and the Modern*. (New York: Museum of Modern Art, 1984); Katia Samaltanos, *Apollinaire, Catalyst for Primitivism, Picabia and Duchamp*. (Ann Arbor, Michigan: UMI Research Press, 1981).

[160] Baudelaire's *Jeanne Duval* poems; Bram Stoker's *Dracula*; Conrad's *Heart of Darkness* and H. G. Wells's *Time Machine* for example.

[161] Race scientists such as Francis Galton (Darwin's cousin and founder of British eugenics) Dr R. Verneau in France, anthropologists such as Dr Paul Broca, Alphonse Bertillon, Dr Paul Topinard, Havelock-Ellis; psychiatrists, anatomists and criminologists such as Charcot, Henry Meige, Dr Emile Laurent, Lombroso, and Kraft-Ebing. For example Dr R. Verneau (medical doctor at the Faculty of Paris, member of the anthropological society of Paris and Préparateur of anthropology at the Natural History museum in Paris.)

published *Le Bassin Dans Les Sexes et Dans Les Races*. (Paris: Baillière, 1875) illustrated by M. de Quatrefages, Professor of anthropology at the Muséum d'Histoire Naturelle de Paris, in which the pelvis in the sexes and races was examined in this anthropological treatise examining the physical structure of the pelvis in a comparative analysis of western males and females with those of 'the colonies' (*Nègres des colonies*) as well as indigenous people of other countries. (*Nègres des Guadeloupe*; Chinese, and Tasmanians were also examined) producing a hierarchical notion of the inferior/different 'race'.

[162] See Nancy Leys Stepan 'Race and Gender: The Role of Analogy in Science' in *ISIS*. No.77, (1986) for a concise, yet detailed account.

[163] See my notes 87 & 88 above.

[164] As Sander Gilman notes, 'Black females do not merely represent the sexualized female, they also represent the female as source of corruption and disease. It is the black female as emblem of illness who haunts the background of Manet's *Olympia*'. S. Gilman, 'Black Bodies, White Bodies: Towards an Iconography of Female Sexuality In Late Nineteenth Century Art, Medicine and Literature.' in Henry Louis Gates, '*Race*' Writing and Difference. (Chicago: University of Chicago Press, 1985) p.250. See also N. Mirzoeff, *Body Scape*. (Routledge, 1995) p.174.

[165] See for example Bertall's 1865 caricature 'Manette, ou la femme de l'ébéniste...' in *Le Journal Amusant*. 27 May, 1865. Also highly critical reviews, for example Amédée Cantaloube in *Le Grand Journal*. 21 May, 1865, 'This *Olympia*, sort of female gorilla, grotesque indiarubber surrounded by black, apes on a bed, in a complete nudity, the horizontal attitude of the Venus of Titian...'. See for more detail T. J. Clark, 'Preliminaries to a Possible Treatment of *Olympia* in 1865' in *Screen*. vol.21, no1, Spring 1980, pp18-41, and also T. J. Clark, *The Painting of Modern Life: Paris in the art of Manet and his followers*. (Princeton, New Jersey: Princeton University Press, 1985).

[166] Sander Gilman, *Difference and Pathology. Stereotypes of Sexuality, Race and Madness*. (Ithaca and London: Cornell University Press, 1985) p.81.

[167] *Nana*'s status as prostitute was indicated by, amongst other things, her state of undress in the company of an obvious flaneur/client and the Japanese crane (*grue* in French) in the background of the painting signifying the French slang for prostitute, or woman of loose morals. Of course *Nana*'s status in the hierarchy of French prostitution would have been that of *courtesan*. Corbin, op.cit, details the various status designations of females selling sexual favours in the late nineteenth and early twentieth centuries.

[168] Gilman, op.cit. p.102. Drawing on Lombroso's theories of degeneracy the ear was just one place where the mark of degeneracy could be seen, but it seems that Gilman has stretched this point in relation to Manet's painting. The stigmata of Darwin's ear was the simplification of the ear's convolutions and

the absence of a lobe. It is hard to see the ear as deformed in any dramatic way in Manet's painting.

[169] Gilman, op.cit. p.85. J. J. Virey in *Histoire Naturelle du Genre Humain*. (Paris: Chrochard, 1824) p.151, states that black voluptuousness is developed to a degree of lascivity unknown in the west and their sexual organs are more developed than those of whites. The Hottentot female he sees as the epitome of sexual laciviousness and talks of her 'hiddeous form' and her 'horribly flattened nose'. Sarah Bartman, also called Saartje Baartman had been exhibited in Paris and Europe in the early nineteenth century. She died in 1815 and an autopsy, written up by pathologists Henri Ducrotay de Blainville in 1816 and later by Georges Cuvier in 1817, linked the Hottentot, seen as the lowest of the human species, with that of the highest ape, the orangutan. The controversy over Sarah Bartman's treatment continued until 2002. Her remains were kept by the Faculty of Medecine in Paris and were exhibited at the Museum of Mankind in Paris until the 1980s. Her remains were returned to South Africa for buriel in May 2002. During the nineteenth century, Bartman became a well known figure, cartoons and references to her appear in the popular press and she became a signifier of racial inferiority and deviant black sexuality. For more information on the topic see Yvette Abrahams, 'Images of Sarah Bartman: Sexuality, Race and Gender In Early Nineteenth Century Britain' in R. Roach Pierson and N. Chaudhuri, (eds) *Nation, Empire, Colony: Historicizing Gender and Race*. (Bloomington & Indianapolis: Indiana University Press, 1998) pp.220-236. Also E. Alexander, *The Venus Hottentot*. (Charlottesville: University Press of Virginia, 1990).

[170] Gilman, op.cit. p.90.

[171] Dr R. Verneau, op.cit., p126-9.

[172] Gilman op.cit. p.102.

[173] Journals such as *Paris Illustré* and *Le Petit Journal Illustré* as well as satirical periodicals such as *L'Assiette au Beurre* and *Gil Blas*. See Goldwater, op.cit, for a list of inaugral ethnographic museums, collections and exhibitions.

[174] Patricia Ann Briggs, *Historicizing Matisse's Representations of Women: Gender and Artistic Expression in the Age of Consumer Culture*. Unpublished PhD Thesis, University of Minnesota, 1998, p.168. Briggs notes that, amongst other examples, the photograph *Two Tuareg Girls* published in *L'Humanité Feminine* (5th January, 1907) was used as the source for Matisse's sculpture *Two Negresses* of 1908. James Herbert has also addressed this issue, see James D. Herbert, *Fauve Painting. The making of Cultural Politics*. (New Haven and London: Yale University Press, 1992) p.160. The journals were intended for artists and the 'serious' connoisseur. They were presented as legitimate documentaries of the female human form and the language used was pseudo-scientific and couched in terms concerning 'careful research' of the topic. It was of course, an attempt to justify what was often nothing short

of erotica and images that appealed to the voyeur as well as to the artist. In defense of his journal Vignola cited the use of photography that gave 'objective vision' of 'inestimable value', and argued that the nude female body was less provocative than the modern clothed female body, whose breasts and hips were exaggerated when wearing the 'cruel corset'. See Briggs, *ibid*, p.192.

[175] This has been addressed by Francis Francina, in Francina et al, (1993) *op.cit.*, p.133, and by Malek Alloula, *The Colonial Harem* (Manchester: Manchester University Press, 1987).

[176] Jack Flam has noted the formal affinities between Matisse's painting and the wooden figurines produced by the Baule and Fang African people. See J. Flam, 'Matisse and The Fauves' in Rubin, *op.cit.*, p.224-226, also cited Herbert, *op.cit.* p.158 and note 34, p.207. African sculpture was widely available in Paris in the early twentieth century, through collectors such as the Steins, and the rise in ethnographic exhibitions and so on.

[177] Herbert, *op.cit.*, p.58.

[178] David Gordon, *Women of Algeria: An Essay In Change* (Cambridge: Harvard University Press, 1968) p.42 and also cited Francina, *op.cit.* p.133.

[179] Corbin, *op.cit.* p.301-2. Corbin notes that prostitutes were seen to have weak cranial capacity, receding or narrow forehead, masculine type of face, huge jaws, shorter pelvises, shorter stocky upper limbs, thicker thighs, abundance of body hair and so on all aligning her with an atavistic notion of the primitive.

[180] Herbert cites Dr René Verneau's description of the skin colour of the women from the sub-Saharan region of Africa in which he states that their skin is emphatically black and even gives off bluish reflections. Dr. Verneau was the conservator at the Musée d'Ethnographie in 1908. Cited Herbert, *op.cit.* p.158. Perry cites Gordon's suggestion that the blue-tinged skin of the local Berber tribe, the Tuareg, who used indigo dye in their clothing could also have been a source of the blue-tinged skin in Matisse's painting of the nude. See Francina and Perry (1993) *op.cit.*, p.58. and Gordon, *op.cit.*

[181] See for example André Gide's *Les Nourritures Terrestres* (1897) where the exaltation of a direct and spontaneous approach to life is couched in *culte de la vie* terms and evokes Nietzschean ideas.

[182] André Gide, *The Immoralist*. trans. Dorothy Bussy, (Penguin 1960) p.36: 'She was a magnificent, heavily built woman, with a high forehead tattooed in blue; she was carrying a basket of linen on her head and was like a Greek caryatid; like a caryatid too, she was simply draped in a wide piece of dark blue stuff, lifted at the girdle and falling straight to the feet' .

[183] As Hilary Spurling notes, Gide had encouraged Oscar Wilde and Lord Alfred Douglas to visit Biskra in search of Arab boys. See Hilary Spurling, *The Unknown Matisse: A Life of Henri Matisse. Volume 1 1869-1908*. (Hamish Hamilton, 1998) p.359. Biskra was also known for its belly-dancers, a form of entertainment specifically catering for the French/European tourist. The belly dancers were the only unveiled women in Algeria, ‘famous for their muscular bodies, their barbaric rhythms and general air of being tougher, fiercer and harsher than the Moorish women of the north.’ and had great appeal to the male, heterosexual, population of France. See Spurling, *ibid.* p.359. Biskra was also a place of contrasts for Matisse. As Judy Freeman has noted he was at first entranced by the beauty of Algeria, but was aware of its inhuman side, and found the towns of Algeria to be like a Paris that was ‘infected, not cleaned for a long time’ and that the Arab residents, who at first delighted him, he eventually saw them as ‘down-trodden’. See J. Freeman, *The Fauve Landscape* (New York: Los Angeles County Museum of Art, Abbeville Press, 1990) p.208. David Weir also discusses the symbolism of Gide’s *L’Immoraliste*, in D. Weir *Decadence and the Making of Modernism* (Amherst: University of Massachusetts Press, 1995) pp.139-150.

[184] Vauxcelles said of the *Blue Nude* ‘A woman, ugly, spread out on opaque blue grass under some palm trees’. Louis Vauxcelles, *Gil Blas*, 20 March, 1907, quoted Rubin, *op.cit.* p.227-8. He also described the *Blue Nude* as a ‘mannish nymph’, echoing the critical reception of Manet’s *Olympia* and unwittingly anticipating the formal characteristics of Picasso’s ‘mannish nymphs’ in *Les Femmes d’Alger*. Vauxcelles, *ibid.*, cited R. Benjamin, *Matisse’s ‘Notes of a Painter’: Criticism, Theory and Context. 1891-1908* (Ann Arbor, Michigan: UMI Research Press, 1987) p.110.

[185] See Maurice Denis, ‘Synthetism’ 1907, excerpt from M. Denis, ‘Cézanne’, *L’Occident*, Paris, September 1907, and ‘Subjective and Objective Deformation’ 1909, excerpt from ‘De Gauguin et de Van Gogh au Classicisme’, *L’Occident*, Paris, May 1909. Both reproduced Herschel B. Chipp, *Theories of Modern Art* (Berkeley and London: University of California Press, 1968) pp.105-107.

[186] Henri Matisse ‘Notes of a Painter’ 1908, in Chipp, *ibid.* pp.132 & 133.

[187] Spurling, *op.cit.* p.212. Mathias-Marie Duval (1844-1907) taught anatomy at the Beaux-Arts from 1873-1899, holding the influential post of Professor of Anatomy. Duval was a medical anatomist and physiologist who embraced Darwinian theory. In Duval and A. Bical’s text *L’Anatomie des maîtres* (Paris, 1890) he used anthropological and biological approach to the classification of human races as the basis of defining anatomical characteristics. In an English edition published as M. Duval, *Artistic Anatomy* trans. F.Fenton, (London, Paris and Melbourne: Cassel & Co., 1890) following Camper’s studies, he reproduces the facial angles of a Caucasian skull, contrasted with that of a Negro skull, a monkey skull and the Apollo Belvedere. See Duval, *ibid.* p.174-177. The racial taxonomy employed in the text would have been known to all Duval’s students, including Matisse. See

also chapter two of this thesis. Matisse's childhood friend, collector and supporter throughout his adult life was Dr Léon Vassaux. Both would have undergone training in anatomy, albeit for different ends. Vassaux trained in Paris at the medical faculty of the Sorbonne.

[188] Alfred H. Barr, *Matisse: His Art and His Public* (New York: The Museum of Modern Art, 1966) p.95.

[189] See Preface to this thesis, for more detail of Bakhtinian theories as applied to avant-garde work. and Patricia Leighton, 'Cubist Anachronisms: A Historicity, Cryptoformalism and Business as Usual In New York', *Oxford Art Journal* Vol.17, No.2, 1994. p.95. Leighton eloquently assesses Bakhtin's theory in relation to Cubism via a critique of the (mis)use of his theory by Rosalind Krauss.

[190] See William Rubin, *Les Demoiselles d'Avignon: Studies In Modern Art*. (New York: Museum of Modern Art, 1994) for a fairly comprehensive review of the literature on the painting.

[191] Rubin, *ibid.* p.58.

[192] Jeffrey Weiss discusses *Blague* and the use of puns and metaphors in chapter three of *The Popular Culture of Modern Art. Picasso, Duchamp and Avant-Gardism* (New Haven and London: Yale University Press, 1994).

[193] For Patricia Leighton such contradictions expressed 'the artist's desire to counter perceived *idée fixes* in the audience of the critics with whom he was speaking and[...] they were informed by that spirit of anarchist clownishness, ironic provocation and self-satire most memorable in Picasso's friend Alfred Jarry, but thoroughly characteristic of the political and artistic bohemia of pre-World War One Paris.' P. Leighton, 'The dreams and lies of Picasso' in *Arts Magazine* Vol.LXII, October 1987, p.50.

[194] Jarry was especially important to Picasso, although his influence on many of the artists and poets of *la bande à Picasso* is well documented. see Leighton, *ibid.*, and P. Leighton, *Re-Ordering The Universe: Picasso and Anarchism 1897-1914* (Princeton, New Jersey: Princeton University Press, 1989). Also see R. Shattuck, *The Banquet years. The Origins of The Avant-Garde In France 1885 to World War One.* (Jonathan Cape, 1969) and Richardson, ALP I & II. Jarry's importance for Apollinaire, Jacob and Salmon (the poets who were closest to Picasso) is significant in the reinforcement of the impact that Jarry's anarchistic, destructive and prankish *modus operandi* had on Picasso.

[195] Ellen C. Oppler, *Fauvism Re-Examined* (New York and London: Garland Publishing Inc., 1976) p.377.

[196] *ibid.*

[197] See for example Barr's comparison, Barr, op.cit. p.85-86. Also see C. Gottlieb, 'The Joy of Life. Matisse, Picasso and Cézanne' *Art Journal* Winter 1959, pp.106-116.

[198] Richardson makes the comparison of Matisse's *Blue Nude* with another primitive work of Picasso's, made early in 1907, *Nu à draperie*, which he argues could be seen as an 'upended' version of Matisse's horizontal nude. Richardson, ALP II, p.38. David Cottington has also made the connection between Matisse's *Blue Nude* and Picasso's primitivized *Demoiselles*, stating that Picasso went beyond Matisse in the appropriation of African cultural models. See D. Cottington, *Cubism* (Tate Gallery Publishing, 1998) p.19.

[199] Equally the much documented 'influence' of Iberian sculpture on Picasso's treatment of the two central figures obscures the function of the signification of those figures, signifying a more general 'otherness', a passive 'noble primitive' trope in contrast and as foil to the startling, aggressive 'primitive' tropes engendered by the masked *Demoiselles*. Picasso's facetious remark in 1920, 'L'art nègre? connais pas!' (*Action III*, April 1920, p.26 quoted in Leighton, op.cit., p.150) appears to be motivated by his own deliberate misleading combined with irritation at constant questioning by journalists. The masked *Demoiselles* represented Africaness, grotesqueness, shock, disease and destruction. It does not appear to have been Picasso's intention that the masks be read as masks as such, their symbolic function goes beyond that. Picasso would certainly have been aware of African artefacts and sculpture, not least from the proliferation of ethnographic museums, exhibitions and collections, but also in the homes of his friends and collectors, people like the Steins, and Apollinaire too had quite a considerable collection of African artefacts. See Golwater, op.cit and Samaltanos, op.cit for further discussion. Richardson also notes that Picasso had been to the Paris Worlds Fair, the *Exposition Universelle* in 1900.(ALP II, p.38) Richardson's comments are restricted to Picasso's attending a dance of the seven veils by Loie Fuller there, but the Exposition had a number of pavillions representing the colonies including mud huts and indigenous African peoples exhibited as part of the spectacle. Picasso also had his own private collection of postcards, photographs and ethnographic images. The Musée Picasso began to document this in detail during the 1990s, see for example Anne Baldassoni (ed), *Picasso Photographe, 1901-1916* (Paris: Musée Picasso, 1994).

[200] Richardson, ALP II, p.15.

[201] According to Kahnweiler, Picasso's dealer, he had originally titled the piece *The Brothel of Avignon*. The personal associations of this are recorded in the conversation as are the alterations Picasso made to his original idea for the *Demoiselles*, in D. H. Kahnweiler, 'Huit Entretiens Avec Picasso' in *Le Point*, Vol.7, No.42, October 1952, cited D. Ashton, *Picasso on Art: A Selection of Views* (Thames and Hudson, 1972) p.153. The coy side-stepping of the brothel associations through Salmon's application of the revised title *Les Demoiselles d'Avignon* for the 1916 Salon d'Antin exhibition 'L'Art Moderne En France', in Paris (the painting's first public showing) only served

to irritate Picasso. Avignon refers to an actual brothel site, sometimes interpreted as a Barcelona bordello, sometimes as a brothel that was literally in Avignon. According to Rubin, Kahnweiler indicates it was based upon an Avignon brothel; Christian Zervos cites a Barcelona brothel, on Avignon street and Alfred Barr enlarged upon this idea indicating it was a caberet or brothel in Avignon street. See Rubin, op.cit. pp.18-19. A further link to the brothel theme and Avignon is the Marquis de Sade, whose familial home was in Avignon. Apollinaire initially referred to Picasso's painting as 'The Philosophical Brothel'. The poet's interest in Sade and the fact he owned a copy of the original 1795 edition of Sade's *La Philosophie Dans Le Boudoir* could allude to the ironic title he gave Picasso's painting as well as to the perceived 'sadism' and formal brutality that the Demoiselles represented. For further discussion of the topic see Rubin, op.cit. pp.17-19. As Rubin notes, Avignon was synonymous with vice, it represented 'the cesspool of all iniquity and infamy', Rubin, op.cit, p.19. An interesting connection between Sade and Picasso's works, is discussed in Neil Cox's article 'Marat/Sade/Picasso', *Art History*, vol.17, No.3, Spring 1994. pp.383-417. Picasso's on-going fascination with role reversals, with aggression and destruction could at least be seen to owe something to Sade, albeit reflected more in the interest in Sade of his poet friends, Apollinaire, Salmon and Jacob.

[202] Colin Rhodes, 'Primitivism Re-Examined. Constructions of The 'Primitive' in Modernist Visual Art.' Unpublished Ph.D. Thesis, University of Essex, 1993, p.150. Rhodes expands this point in his discussion.

[203] Patricia Leighton, 'The White Peril and L'Art Nègre: Picasso, Primitivism and Anti-Colonialism' in *Art Bulletin* Vol.LXXII, No.4 December 1990. p.627. In this article Leighton demonstrates Picasso's awareness of Africa's colonial context within French society. His 'appropriation' of African motifs is seen as a way to not only 'primitivze' the subject but also introduce Africa as an iconographic element, valorizing the products of its culture whilst simultaneously accusing the French of 'hypocrisy and "bankrupt" artistic traditions during the intense political debate on colonial brutality.' See Leighton, *ibid*, p.625. Apollinaire's importance to the wider promotion of *L'Art Nègre* and aesthetic innovations such as primitivism have been addressed by Katia Samaltanos.op.cit.

[204] Leighton discusses how Picasso's friends and associates such as Kees van Dongen, Juan Gris, František Kupka and André Salmon were all involved, at one time or another, in condemning colonialism through articles, satirical illustrations and cartoons. See Leighton, (1990) *ibid*.

[205] David Lomas, 'A Cannon of Deformity: Les Demoiselles d'Avignon and Physical Anthropology.' *Art History*, Vol.16, No.3, September, 1993, p.425.

[206] There is some question about the motive for the visit. Richardson suggests it may have been to be treated for a venereal disease that Picasso may have picked up, as much as for sketching the prostitutes. It was late summer or autumn 1901 when Picasso visited the Saint Lazare prison and gained

permission to visit from Dr Louis Jullien, a venereologist. (Richardson, ALP I, p.218, and Josep Palau I Fabre, *Picasso[...] the Early Years*. op.cit. p.277. Dr Jullien published 'Hygiène publique. Les Vénéériennes A Saint Lazare' in *Revue de Médecin Légale* in 1901.

Images of women wearing the so called 'Phrygian' bonnet, a white bonnet that inmates at the Saint Lazare had to wear if they had venereal disease, dominate Picasso's images of women in his so called Blue Period. See Fabre, *ibid* p.290. Later, in 1902 Picasso's friend Dr Josep Fontbona had treated him for a venereal disease and in exchange Picasso gave him *Mother and child on the Seashore* (Barcelona, 1902). Dedicated to Dr Fontbona, the image shows a woman wearing the white phrygian bonnet and carrying a red flower, the traditional emblem for a prostitute who is menstruating or sick. See ALP 1, p.238, and Fabre, *ibid*, p.297. Dr Josep Fontbona was a gynaecologist who was later acclaimed for editing the first Catalan gynecological journal *La Ginecologia Catalana*. See ALP 1, p.501, note 13.

Richardson also notes that Picasso would have seen the 1886 drawing that Toulouse-Lautrec had made for Aristide Bruant's magazine *Le Mirliton* of a syphilitic prostitute incarcerated at the St. Lazare. It was hung on the walls of Bruant's cabaret (ALP 1, p.218).

Michael Leja has also addressed Picasso's early paintings of the St. Lazare women and *Les Demoiselles* in relation to prostitution and disease. M. Leja, 'Le Vieux Marcheur' and 'Les Deux Risques': Picasso, Prostitution, Venereal Disease and Maternity, 1899-1907.' in *Art History*, vol.8, No.1,1985, pp 66-81. The infamy of the Saint Lazare was further disseminated by numerous drawings and prints of the prison-hospital by artists such as Albert Morand.

[207] Lomas, op.cit. p.434. Tarnosky's theories of heredity syphilis and its physiological impact are addressed in P.Tarnowsky, *Etude anthropométrique sur les prostituées et les voleuses* Paris, 1889, cited Lomas, op.cit. note 43, p.444. Lomas states the nose shape in *Les Demoiselles*, 'en quart de Brie' is 'a tell-tale sign of atavism' in that it is asymmetric. Lomas, *ibid*, p.434. However, it could be a reference to the nose of the syphilitic. In the late stages of the illness the nose is literally 'eaten away' and affords an asymmetry of a biological nature.

[208] Lomas, op.cit. p.436. Also, the sketches that Picasso made in preparation for his painting reveal an anthropometric assessment of the body. As mentioned in chapter two, Picasso would have been aware of such systems of measurement and proportion from his art-school training. He has taken the idealised body proportions, and deliberately distorted them in *Les Demoiselles d'Avignon*. The subversion of the cannon of ideal beauty and the distortion of line in this work could also be said to relate, in part, to the work of Mecislas Golberg. See chapter two of this thesis.

[209] Anna Chave explores the differences between Manet's *Olympia* and Picasso's painting in 'New Encounters with *Les Demoiselles d'Avignon*: Gender, Race and The Origins of Cubism.' in *Art Bulletin* vol.LXXXVI, No. 4, December 1994 .

As Tamar Garb has noted in relation to the nineteenth century European, and which could be extended to that of the early twentieth century mind, 'a 'masculine woman' or 'feminine man' represented an unnatural aberration, a grotesque distortion of a preordained set of distinctions that were rooted in biology, decreed by nature and endorsed by the complex organisation of sexual and social behaviour which characterized modern society.'. T. Garb, *Bodies of Modernity. Figure and Flesh in Fin-de-Siècle France*. Thames and Hudson, 1998. p. 11. Thomas Laqueur also addresses the scientific justification of the different constructs between men and women in C. Gallagher, and T. Laqueur, (eds) *The Making of the Modern Body: Sexuality and Society in the Nineteenth Century*. (Berkeley and Los Angeles: University of California Press, 1987).

[210] As noted above, Ehrlich's Salvarsan ('606') was not available until 1910, and from the late nineteenth century on Picasso and his friends and contemporaries, frequenting brothels as they variously did, would have been aware of the danger and risk. As early as 1895, Picasso's Spanish friend Ramón Casas (1866-1932) the Spanish *Modernista* of *Quatre Gats* produced an illustration for a sanatorium for syphilis patients in Barcelona promising an 'unconditional radical cure'. [Fig. 120: poster reproduced in William H. Helfand, et al, *The Picture of Health: Images of Medicine and Pharmacy*. (Philadelphia: Philadelphia Museum of Art & University of Pennsylvania Press, 1991) p.29, plate 12] The snake crawling across the woman's shawl represents the hidden deadly disease, and the woman's undoubted promiscuity that led to contracting the disease. She is shown looking longingly at the white lily, a symbol of her lost purity. Picasso knew Casas from about 1899. See Richardson, ALP I, pp.113,115 and 130-133 .

[211] Lomas, op.cit. p.439. Tamar Garb also cites *La Culture Physique* as part of her empirical evidence in her chapter 'Modelling the Male Body: Physical Culture, Photography and the Classical Ideal' in Garb,op.cit. However, it is a publication that deals with physical culture in the early twentieth century, later in fact than the period which she is theorizing, the late nineteenth century. The issues of the journal she examines, from 1904-5, do reflect the contemporary concern with the healthy, 'ideal' body as part of the wider concern with depopulation, infertility and degeneracy. Garb, op.cit. pp56-79. However, the journal was only founded in 1904 and it is precisely those concerns, which in the *fin-de-siècle* period were more limited to concerns of those in scientific, medico-legal and social hygiene professions, which, only by the early twentieth century, had become more widely disseminated leading to a popular conception of depopulation, physical decline that equated with French national decline.

[212] G. Apollinaire, 'La Danse est un Sport' in *La Culture Physique* February, 1907, and 'Guy de Maupassant athlète' *La Culture Physique*, March 1907, as reprinted in *Oeuvres Complètes de Guillaume Apollinaire*, vol. 4, Décaudin (ed) (Paris: Gallimard, 1966) pp.665-79.

[213] Lomas states that in the preface to Apollinaire's farce *Les Mamelles de Tiresias*, which was outwardly concerned with the issue of repopulation, he confesses that he is unable to decide if he should be taken seriously or not. (Lomas op.cit p.439). Apollinaire however, could be playing to both a more conservative audience and the more subversive avant-garde audience. The very ambiguity of the article could work in his favour by making him all things to all men, and Apollinaire's desire to be accepted in many circles has been documented. Equally, the climate of opinion was one that caused many hitherto avant-gardist or unconventional thinkers to write reactionary and conservative pieces on the *dégénérescence* in society. Remy de Gourmont, for example, wrote about gambling as analogous to alcoholism and warned of its consequences (automatism, loss of consciousness and in some cases extreme hysteria which made the individual open to other questionable obsessions) see Remy de Gourmont, *Dépêche de Toulouse* July 18, (1908) as cited Nye, op.cit. note 100, p.166. De Gourmont was a contemporary of Apollinaire, they met through the *Mercur de France*.

[214] The strange fusion of muscular bodies and primitive signifiers continues in many of Picasso's works of a 'primitivised' nature from this period. See for example his *Bather* of early 1909, whose distorted body reveals the muscular torso of the masculinised prostitute and also the exaggerated buttocks of the Hottentot. Earlier paintings also engage with this body-type.

[215] Nye details the rise in sporting activities in France from the 1880s and 1890s, see Nye op.cit p. 320. Nye notes that the concern with national decline, seen in medical and biological terms, made it possible for sport to assume a therapeutic status. It was possible to avoid the onset of full blown degeneracy by regular participation in sport and exercise. Nye, op.cit. p.321. He notes that Victor Margueritte, Republican founder of the pro-physical culture *Ligue républicaine d'action nationale* "expressed his fears about the low birth rates, alcoholism and the 'vital weakening' of French society. Sport, he argued, would treat the mind through the body and would stimulate a 'cult of energy' that would 'preserve the race and extend its strength'." Nye, op.cit. p.326.

[216] Nye op.cit. p.167. J. Bertillon, *La dépopulation de la France, ses conséquences, ses causes, mesures à prendre pour la combattre* (Paris, 1911) cited Nye.op.cit, note 104, p.167. Bertillon founded the *Alliance nationale pour l'accroissement de la population Française* in 1896.

[217] ALP II, p.265-267. Richardson also reproduces a photograph of George Braque boxing, taken in 1904-5. See ALP II, p.267.

[218] Poster reproduced in Helfand et al, op.cit., p.39. Even satirical periodicals continued to use the symbol of syphilis as a metaphor of destruction, and death; the war edition of *Le Rire*, January 1915, included a litho-print by Henri Lanos (1886-1946) entitled 'The Dribbling King -- The Last Stage', a caricature of Kaiser Wilhelm II (1859-1914) the reference, clearly, is to syphilis or a venereal disease, functioning here both as denigration of the subject and signalling his demise.

[219] Frascina, op.cit. p.159.

[220] See for example Panofsky's article on the topic of Syphilis and Fracastoro that includes a review of key works that contain the theme of syphilis as part of his exegesis. E. Panofsky, 'Hommage to Fracastoro in a German-Flemish Composition of about 1590?' *Nederlands Kunsthistorisch Jaarboek*, vol.12 (1961) pp.1-33, and a later text by W. B. Ober, 'To Cast A Pox: The Iconography of Syphilis' in *The American Journal of Dermatology Part II* (1989) pp74-86. The catalogue to an exhibition at the Wellcome Institute For The History Of Medicine also documents the iconography of syphilis and AIDS, see K. Arnold, & F. James, et al, *Fatal Attractions: AIDS and Syphilis from Medical, Public and Personal Perspectives*. (London: Wellcome Institute For The History of Medicine, May 1995).

[221] R. Blanchard, 'La Syphilis dans l'art.' *Nouvelle Iconographie de la Salpêtrière*, XVI (1903) pp.266-270, and 'Les maladies vénériennes dans l'art.' *La France Médicale* (1904) pp.1-4, cont pp.24-26, 42-44, 108-113.

[222] Raymond A Anselment, 'Fracastoro's Syphilis -- Nahum Tate and the Realms of Apollo' in *Bulletin John Ryland's Library*, No.73, Spring 1991. p.106. Fracastor's contextualisation of Syphilis and its origin included reference to astronomical phenomena, the conjunction of planets and unusual meeting of celestial bodies, Jupiter, Saturn and Mars, as well as more material descriptions of medical treatment, notably through the use of mercury. There is also reference to a handsome, promising youth who, ravaged by the disease blames his wretched death on a morose Saturn and vengeful Mars. Such themes and symbolism found in Fracastoro's poem would have been of interest to Apollinaire and could have provided yet another source of iconography to the artists most closely associated with him. See also reference p.174 above to cartoon from *Le Rire* 30 December, 1911, that makes playful allusion to such syphilitic associations. The poem was also translated and published in 1840: *Syphilis: Poem en deux Chants* trans. August Barthelemy, (Paris 1840) and included a frontispiece [Fig 72] which signifies the syphilitic woman hiding behind her painted 'mask' of respectability.

[223] The topic of doctor-poets crops up in the literature on Apollinaire in a slightly different context. An article appearing in *Mercure de France* on the 1st May 1917, p.186 titled 'Les Médecins-Poets' by a Dr E. Callamand has been erroneously attributed to Apollinaire. Katia Samaltanos cites Apollinaire as the author, Samaltanos, op.cit. p.87, and gives no indication of the real author's name or any claim for it being a pseudonym used by Apollinaire. Indeed Apollinaire does mention Dr Callamand himself, in 1918, but in an entirely different context. In 'La Vie Anecdotique' in *Mercure de France*, 16th September 1918, Apollinaire said after a regrettable confusion in his last article he received a letter from Dr Callamand pointing out the poet's mistake (Apollinaire confused *Sainte-Alliance* and *Belle-Alliance*) *Oeuvres En Prose Complètes de Guillaume Apollinaire*. Tome III (Paris: Gallimard, 1993) p.300.

[224] See A. Rouveyre, *Visages des Contemporarins: Portraits Dessinés D'Après Le Vif. 1908-1913*. Préface de Remy de Gourmont. (Paris: Mercure de France, 1913) plate CXI .

Chapter Four Hermaphrodites, Bicéphales, and Alchemical Iconography.

4.1 Bicéphales, Hermaphrodites and the Iconography of Chagall's *Hommage à Apollinaire* and *Paris Through The Window*.

This chapter deals with the representation of medical iconography and metaphor derived from both classical/ Renaissance models and the contemporary, as articulated in certain paintings from the period.

Apollinaire's interest in Rosicrucian mysticism, alchemy and hermetic, emblematic sixteenth-century literature has been established for some time now.^[1] However, the poet's interest in contemporary medical themes and iconography has only recently been tentatively addressed, and more in connection to metaphors for Cubist formal aesthetics than any specific medical iconography.^[2] As will be demonstrated below, it was in fact a fusion of the older, more occult/alchemical interests combined *with* contemporary iconographic and literary evidence of a medical nature that informed both Apollinaire's interest in such themes as the androgyne and hermaphrodite as well as informing the paintings of certain artists acquainted with the poet.

The polyvalent nature of many of the avant-garde works under investigation here reveals the dualistic interests of Apollinaire in both the past and the modern in terms of occultist, mythological or medical themes. Chapter three briefly mentioned the image of Apollinaire as 'strongman' in Picasso's caricatures. In Picasso's *Acrobate à la boule*, early 1905, there is both a contemporary allusion to the poet's contributions to *La Culture physique* and the climate of interest in the revival and repopulation of the French nation, combined with an implicit reading of the image as an adaptation of Alciati's 'Ars Naturam Adiuuans' 1550 emblem, where

Apollinaire, in the guise of Hermes, presides over the arts.^[3] This dualism, of the modern and the ancient, appears in many works by those artists in close contact with the poet, and although his influence is not the only source for such strategies and themes, it is a significant one. In this section of chapter four, the idea of the hermaphrodite/androgyne is explored in relation to Chagall's work. However, as was briefly mentioned in chapter three, Picasso demonstrated awareness of such ideas in the more androgynous signification of the females represented in his work from around 1907 on, specifically *Les Femmes d'Alger (O. J. R. M.)*. There, it was argued, the masculinization of the female body was engendered by interests in both contemporary medical-colonial discourse (the anthropological 'evidence' of African female anatomy) and medical theories of degeneracy that located certain groups of females, prostitutes in particular, within the same typological categories as so called 'lower species' such as apes, and revealed their morphology as being closer to that of men (profuse body hair, stocky body type and so on). Here, in 4.3, this work will be briefly discussed again but with reference to the androgyne/hermaphrodite of both alchemical and contemporary medical discourse.^[4]

The alchemical construct of the androgyne has been examined in relation to certain avant-garde works,^[5] but until now the contemporary medical aspect of interest in the hermaphrodite/androgyne has not been commented upon. Apollinaire's interest in medical discourse, as evidenced by his collection of medical-related literature in his library is further enforced by examination of his art criticism and writings particularly from 1912, when more references and allusions of a medical kind can be found. Two authors have noted this

interest, Samaltanos (1981) and Rousseau (2001), but their investigations limited the context of Apollinaire's interest to, on the one hand, more psychological references, and on the other, to specific comments concerning medical metaphors in relation to Cubist formal aesthetics. My argument here, is that the poet's interest in such themes extended beyond those parameters and, through interaction with his wider circle of friends and associates of both an artistic and medical kind, we can trace the interest in medico-scientific discourse through to its inclusion in, and articulation by, certain avant-garde art works of the period, produced by those artists with whom Apollinaire was closely associated.

The fact that some of these artists, Picasso and Chagall for example, quite openly declared little interest in 'theories' or by extension, carefully conceived/contrived strategies of hermetic symbolism and signification is, in fact, partially undermined by synchronic examination of key works and their content and meanings. Rather than having to 'consult' specific texts (a criticism that has been levied in arguments against Picasso's 'knowledge' of physical anthropology relating to prostitution for example^[6]) the climate was such that certain interests and iconography of a medical kind were readily available, either in the popular press, or through intermediaries and figures such as Apollinaire, or perhaps a combination.

Interest in alchemical and hermetic tradition has been identified in Apollinaire's writing from as early as 1901.^[7] In part a legacy of Symbolist revival of interest in hermetic confraternities and alchemical symbolism and allegory, the articulation of such themes by Apollinaire and his circle of painter friends was however, far from the serious and ritualistic attitude to

such ideas practised within some Symbolist groups.^[8] Apollinaire's evocation of such themes was almost ironic, half serious and half playful.^[9] This Rabelaisian quality to the interpretation and articulation of hermetic themes is one that extended to the artists who took up those ideas in their paintings.

Chagall's *Hommage à Apollinaire* 1913-14 ^[10] [Fig.73] contains an overtly Apollinairean iconography, particularly in the alchemical and cabbalistic image of the androgyne.^[11] As has been established, the segmented, circular, configuration of Chagall's image alludes to the Grande Roue and the circle of the Zodiac as well as to a fragmented face of a clock.^[12] The 'simultaneous disc' relates to Orphic iconography found in Delaunay's contemporary paintings, where the disc could be seen to signify a variety of meanings and references relating to such motifs; Leonardo's illustration of transverse light waves, the neo-impressionist colour wheel, and *La Grand Roue de Paris* for example.^[13] It also relates to the structural representation of the cosmos and the representation of 'divine human form' in Renaissance imagery.^[14]

The androgyne figure at the centre of Chagall's circle acts as the Orphic symbol of perfect man, the hermaphrodite of alchemy, a hermetic symbol of simultaneous allusions, it also relates to the image of Adam and Eve, a theme explored by Chagall in an earlier painting of 1912.^[15] The heart motif which also appears in *Paris Through The Window*, 1913-14, [Fig.74] and in the contemporaneous work *Half Past Three Or The Poet*, [Fig.75] appears to link these works primarily to Apollinaire, although reference to other poets such as Chagall's friend Blaise Cendrars can also be seen in certain aspects of these works. The cat and heart shape near the right arm/sleeve of the *The Poet* are motifs that appear again in *Paris Through The Window*. The sketched 'A'

and the drunken poet with the bottle of *eau de vie* in *Half Past Three*[...]

appears to signify Apollinaire, author of *Alcools*.^[16]

In *Hommage à Apollinaire* the androgyne represents spiritual harmony. The androgyne was a frequent theme in Symbolist art, particularly in works presented through the Salon de la Rose + Croix, established by Péladan where the application of religious and occult ideas to art was a particular motivation. The androgyne related not only to Platonic ideals, and alchemical thought, but was also related to Jewish religious narratives. The original Adam of Genesis was an androgynous being, a composite of heart and soul. The creation of Eve from Adam resulted in a divisive universe. In *Hommage à Apollinaire* Chagall has made reference to this theme in both the hermaphrodite/Adam and Eve figure holding the apple and in the four names inscribed around the heart motif. These represent the poets and critics who had encouraged and supported Chagall: Guillaume Apollinaire, Herwarth Walden, Blaise Cendrars and Canudo. It also represents the unification of the four elements, which in Jewish narratives were originally united. Parts of the names of the four men act as a synecdoches for the four elements: *aire* (air), *Wald* (German for wood/earth), *cendres* (fire), and *eau* (water) respectively. ^[17] This word play by Chagall is something found in Apollinaire's own writings and posturing and also relates to a prevalent culture of punning as well as to the hermetic language of alchemy.^[18]

Chagall is also alluding to Cabbalistic doctrines which takes reunification of diverse elements into a single form as a goal of mankind. The alchemically created hermaphrodite, hermetic androgyne or rebis 'trampled the four elements under foot to impose order on material chaos' and the union of these

elements and the masculine and feminine principles into a holy alchemical hermaphrodite represented ‘the completion of matter with spirit’.^[19] The union of masculine and feminine principles found in alchemical writings was often represented by the union of the sun and moon, and the representation of the hermaphrodite as being born from Mercury (Hermes) and Venus (Aphrodite).^[20] [Fig.76] The personal associations of the figure of Mercury and the Sun (Apollo) with Apollinaire would have been known to Chagall through his connections with the poet. The androgyne can therefore be seen as partially alluding to Apollinaire and his interests.^[21] Chagall and Apollinaire knew of the cabbalistic sources for the androgyne, and Apollinaire was familiar with the Hermetic tradition found in the writings of Péladan, for which he expressed admiration..^[22] Péladan, who founded the Salon de la Rose + Croix, advocated the idea of platonic love as the ideal and ultimate form of spiritual expression. In his novel *L'Androgyne* he writes:

[the androgyne] represents the initial state of man, which is identical to his final state. He assigns to him the principle of evolution and the secret of success...and this secret decodes itself easily through the word ‘love’ which, heraldically, consists in the rapprochement of the beard and the breast of androgynous passions. The sphinx incarnates the complete theology with the solution of origins and finalities..^[23]

Chagall’s painting *The Pregnant Woman* (1913) [Fig.77] incorporates a composite male/female head. The bearded male face is in profile. Given the connections that Chagall had to figures like Apollinaire in this period, it is possible to see this work, on one level, as being an allusion to the alchemical androgyne.

Such imagery and concepts of the androgyne as articulated by Péladan also has implications for Chagall’s other work of the period, *Paris Through The*

Window, as discussed below. In *L'Androgyne*, Péladan's conception of the androgyne is emblematically represented by the Sphinx, but is also identified as male by the masculine pronoun.^[24] The reason for this is to differentiate between the androgyne and the gynander. In his book *Le Gynandre*, the essential masculinity of the androgyne is made clear:

The androgyne is the virginal adolescent male, still somewhat feminine, while the gynander can only be the woman who strives for male characteristics, the sexual usurper: the feminine aping the masculine...The first originates from the Bible and designates the initial stage of human development; the Graeco-Catholic tradition has consecrated its use, whereas I have taken the other from botany, and with it I baptise not the sodomite but any tendency on the part of woman to take on the role of man.^[25]

Thus the gynander is associated with women and they are seen as a hindrance to the spiritual advancement of mankind. Recalling the Hebrew legend of Adam as original androgyne, the return to androgyny is achieved through purity and spirituality of male chastity. These ideas have some bearing on the earlier work by Picasso, *Les Femmes d'Alger (O. J. R. M.)*, which is briefly discussed below in 4.3.

However, it was a decidedly modern interpretation of these themes that Chagall engaged in, with the various references to the poets and critics he was in contact with and the iconographic motif of the *Grand Roue*, seen not only in Delaunay's paintings and Chagall's other work *Paris Through The Window*, but also in popular postcards of the period [Fig.78] served to highlight the *modernité* of Chagall's painting. This modern conception of more ancient and esoteric symbolism can also be extended to the image of the androgyne/hermaphrodite itself.

The hermaphrodite was a popular topic to be found in the journals and periodicals of arts and sciences that Apollinaire collected and owned. As the

physical embodiment of the mystical androgyne it would have held double fascination for Apollinaire and his circle. *Aesculape*, *La Chronique Médicale* and *La France Médicale* covered many diverse and extraordinary topics of a medical, artistic and literary nature. Articles on hermaphrodites, conjoined twins, deformed foetuses and degenerative complications of syphilis are some of the subjects focused on in such publications.

The fascination with deformity and medical ‘freaks’ of nature was a nineteenth century legacy that still captivated a curious and horrified audience in the pre-First World War period.^[26] The medical category of hermaphrodite was seen as the antithesis of the ideal union embodied in the alchemical androgyne. It was a pathology that included a blurring of the distinctions between a single body that carried both male and female sexual organs and genitalia and the various forms of conjoined-twins, some with one body and two heads, some with two bodies joined at either head or body level. Since antiquity such beings have been of fascination either presented as ‘monsters’ for example in Ambroise Paré’s *Des Monstres et Prodiges* or medical curiosities in need of surgical intervention.^[27] The transgression of sexual boundaries signified by the hermaphrodite raised fears of homosexuality and sexual excess. This was something that was prevalent in texts concerning the hermaphrodite as early as the sixteenth and seventeenth centuries.^[28]

Sexuality was still part of the discussion concerning hermaphrodites in the late nineteenth century. Dr Henry Meige, (1866-1940)^[29] was a prolific writer for many journals and periodicals including those issues owned by Apollinaire mentioned above. In 1895 he wrote an article on ‘Infantilism, Feminism and the Classical Hermaphrodite’ which addressed his two main interests, Art and

Medicine.^[30] In discussing the hermaphrodite found in art, Meige asserts that these had, in part, a basis in reality.^[31] He declares that the Greeks, whilst generally reluctant to portray the ugliness of sickness and disease, were not deterred by representing deformities or strange body shapes, and that whilst most human deformities are unattractive, there is still an element of beauty in the subject which attracts the attention of the artist.^[32] Such sentiments almost anticipate Golberg's and Denis's championing of 'deformity of line' in art practice and aesthetics. Indeed given Meige's connection to the Ecole des Beaux-Arts and the Salpêtrière hospital it is tempting to suggest that Golberg may have been aware of such ideas engendered by the discursive accounts concerning art and medicine that permeated beyond the specialist periodicals to the more popular press.^[33]

However, Meige goes on to note that the true hermaphrodites in life, those people with both male and female genitalia, are 'monstruosités inesthétiques' which although they may have some curiosity value for artists, were in fact only 'inspirations for licentious images'.^[34] It is what Meige terms 'féminisme' and 'infantilisme' of the human body that he sees as inspiring the classical hermaphrodite. These cases in medicine relate to what we think of as 'hermaphroditism', cases of sexual diamorphism, but also to the under-development of sexual organs, these aspects Meige sees as closer to the harmonious fusion of male and female attributes by the artists in creating the sacred androgyne image.^[35] Meige also acknowledges the work of Dr Paul Richer in 'Les Hermaphrodites dans L'Art.' where Richer makes the connection between living pathologies of hermaphroditism and those

representations found in art.^[36] This fascination continued well into the twentieth century.

In 1908 *La Chronique Médicale* had a series of short articles relating to hermaphroditism and '*personnage bicéphale*'.^[37] The first article dealt with 'Un cas d'hermaphroditisme', a discussion of a living hermaphrodite and the clinical assessment of their deformity from 1679. The second article concerning the *bicéphale* related to a bronze in the Musée de Sens and a drawing of the bronze sent in by Dr René Moreau. [Fig. 79.] The *bicéphale*, literally 'two headed' being, had a history within medical discourse that was bound up with the display and 'spectacle' of freak shows and museums of monstrosities and human deformities. It was a frequent, and often horrific, image in such periodicals dealing with the arts and medical science and is related to the hermaphrodite in that the two heads could often be of different sex. Fig. 80, shows a range of such images taken from the Museo Cesare Taruffi, in the Università di Bologna and Etienne Serre's 1833 study of conjoined twins. Such images are typical of the exhibits on show across Europe in this period and historical anecdotes concerning such beings were reproduced in *Aesculape*. In the copies of that journal owned by Apollinaire, particularly 1912 editions, there are numerous articles specifically relating to the androgyne and hermaphrodites as well as others dealing with 'les monstres'.^[38]

From seventeenth-century narratives, to nineteenth and twentieth-century medical articles, the *bicéphale* (also known as 'dicephalus' in medical terms) has been a focus for diverse authors.^[39] We know that the medical interest of Apollinaire and certain art critics in 1911/12 was being articulated in reference

to Cubist aesthetics and more specifically with the evocation of Dr Doyen's name. (See Chapter Two) It was noted that a high profile case concerning Doyen's attempt to separate conjoined twins had been reported in the press. [Fig.58]. It seems plausible then to suggest that more material sources of a medical kind may well have informed Chagall's image of the androgyne in *Hommage* operating as it does within the realms of multiple signification, *qua* hermetic coding.

Chagall's other painting of this period *Orphée* (1913-14) [Fig.81] makes overt and obvious reference to Orpheus and the physical bisexuality that Orphism in classical mythology helped to popularise.^[40] However, the body-type as represented by Chagall is morphologically similar to the images of young men 'suffering' from *infantilisme* and *féminisme* that were reproduced in Meige's article on Hermaphrodites.^[41] [Fig.82] Such images were also to be found in the more popularist medical journals (such as *Aesculape*) and Meige points out that Richer had addressed the similarity between the hermaphrodite immortalised in Art and the body of the 'infantiles' and 'feminins' in the catalogue *Nouvelle Iconography de la Salpêtrière*.^[42] Chagall's *Orphée* has a body-type of the 'ideal' androgyne in Péladan's terms, the 'virginal adolescent male, still somewhat feminine' (see Péladan's quotation above) which corresponds directly with the contemporary medical descriptions of *infantilisme* and *féminisme*. Given the obvious references and links to Apollinaire and Apollinorean iconography^[43] it is possible to suggest that again, more contemporary medical iconography may well have informed Chagall's image of *Orphée* in a similar way to that of the androgyne/*bicéphale* in his *Hommage à Apollinaire*.

This becomes more convincing when the term *bicéphale* is examined in its socio-cultural context. By the early twentieth century the common term, the ‘argot’, used to describe medical men with other interests, usually in the arts was ‘*bicéphale*’.^[44] These *bicéphales* included eminent doctors and surgeons who also pursued literary or painting careers. Dr Witkowski was one such literary *bicéphale*, producing diverse works of a medico-artistic kind. His collections of poetry, prose, anecdotes and puns appeared in Apollinaire’s own library.^[45] Dr Joseph Grasset was also pursuing a literary career in the early twentieth century, and wrote for the theatre as well as producing novels.^[46]

The dual interests of Art and Medicine appealed to Apollinaire’s own sense of identity and interests. The doctors who pursued painting even had their own annual Salon, which although never reviewed by Apollinaire himself, were frequently reviewed in periodicals such as *La Chronique Médicale* and *Aesculape*. Many of those doctor-artists also exhibited at salons that Apollinaire did frequently attend and review such as the Société des Artistes Français.^[47] Dr Lucien Nass reports in *La Chronique Médicale* of 1907 on ‘Médecins peintres’ and ‘Un médecin peintre, le Dr Chicotot’, and on the ‘Dîner des *bicéphales*, held for Doctor-artists.^[48] Dr Chicotot’s paintings dealt with innovative techniques and procedures such as radium treatment, and X-ray cancer treatment. Such topics would have been of interest to Apollinaire and his artist friends such as Picabia and Duchamp, accordingly Chicotot’s work is discussed in Chapter Five of this thesis. Chicotot was also briefly mentioned in the review of the Salon des Médecins in *Aesculape* 1911.^[49]

The “Dîner des ‘*bicéphales*’ ” was held twice a year and a report in *La Chronique Médicale* (1906) described how initially Dr Paul Richer, who was

nominated by the members of the Académie des Beaux-Arts and the Académie de Médecine proposed to call this 'réunion gastronomique' the 'Dîner des Hermaphrodites'.^[50] This was overturned in favour of the 'Dîner des *bicéphales*' but shows that even at the time there was slippage of meaning between the idea of the hermaphrodite as two headed being and the Doctor/*bicéphale* as having two interests.

As an evocation of Apollinairean iconography the *bicéphale* image appears again in Chagall's *Paris Through The Window*, (1913-14). This work, singled out for praise by Apollinaire in his review of the exhibition at *Der Sturm* gallery in Berlin in June 1914^[51], embraces the *bicéphale* themes that simultaneously represents both past and present, the alchemical, Orphic and hermetic symbolism fused with contemporary iconographic motifs of modernity. The sphinx-like cat could be seen as a reinforcing signifier of the androgyne, represented implicitly in the Janus head in the painting's lower right hand corner. We need only recall Péladan's conception of the androgyne as emblematically represented by the Sphinx, and the ideal androgyne as adolescent male, beardless but still feminine. The Janus head has been noted as corresponding to an unusual beardless representation of Janus on a rare Roman coin in the Bibliothèque Nationale.^[52] The blue flower in the mouth of the Janus figure also can be seen as an allusion to the androgyne since the Golden flower of alchemy can sometimes be a blue flower, the 'blue flower of the hermaphrodite'.^[53] This combined with *a priori* knowledge of Apollinaire's dual interests in the Arts and Sciences makes a convincing case for seeing the Janus head as yet another 'hommage' to Apollinaire.^[54] It has been noted that the profile of the head corresponds with Apollinaire's own

‘Roman profile’.^[55] The position of the head and hand of the Janus in Chagall’s painting has also been compared with ‘The mystery of the Human Head’ from Robert Fludd’s *Ultriusque cosmi majoris et minoris historia* of 1619.^[56] The dualism represented in the double nature of the head, the dark blue, melancholic, night side and the lighter, golden, side could represent the rapprochement of sun and moon in alchemical union, the past and present, and the two sides of the poet’s own nature.^[57] The Egyptian reference to Horapollon signified by the obelisk-like Eiffel Tower and the sphinx-like cat has been established for some time as yet another Apollinairean reference.^[58]

This Egyptian reference is sometimes extended to include the figure in the top right of the painting apparently holding a pyramid shape. Little seems to have been said about this motif, but it corresponds to sketch made by Leonardo c.1500, of a ‘drawing of a parachute’ [Fig.83] Given the climate of interest in Leonardo in Paris during the pre- First world war period, and Apollinaire’s interest in Renaissance texts and images, it is possible that such an image would have been known to Apollinaire if not Chagall.^[59] Such iconographic motifs would seem to further indicate the dualism of Apollinaire’s interests, the *bicéphale* reference and by extension the reference to the two-headed being, the androgyne.

Thus ‘specialist’ knowledge of medical phenomena such as *hermaphrodites* and *bicéphales* was unnecessary for artists like Chagall, since such beings and their images and attendant symbolism were available through a variety of sources not least the poet with whom he was closely associated in this period.^[60]

4.2 Duchamp, The Androgyne and *bicéphale* iconography.

Leonardo da Vinci was the first historical figure to whom Freud applied his modern method of psychoanalysis. Freud's 1910 study *A Childhood Memory of Leonardo da Vinci* examined Leonardo's alleged homosexuality, his obsessive research, and his 'double nature' as an artist and scientific investigator.^[61] The period before the outbreak of the First World War, and arguably in its immediate aftermath, was one that embraced the *bicéphale* idea of the double nature of the artist/scientist, or artist/doctor. As a reinvocation of Renaissance ideals such double or multiple interests were appealing not only to figures like Apollinaire but others operating within that specific cultural milieu. Duchamp's work readily comes to mind when we consider the self-conscious appropriation of the *bicéphale* nature. The double nature of Leonardo that Freud identified in 1910 appears to be something that was emulated, albeit for very different ends, by Duchamp.

Duchamp's most obvious reference to Leonardo appears in the Dada work of 1919, *L.H.O.O.Q.*, the postcard of Leonardo's *Mona Lisa* upon which he drew a moustache and beard and signed his own name. The pun is well documented, when read quickly in French the letters sound like 'elle a chaud au cul' (she's got a hot ass). It is iconoclastic, crude, anti-bourgeoise, anti- the 'originality' of art myth associated with bourgeois art by certain avant-garde protagonists and simultaneously links the image to crude stereotypes about homosexuality and yet also to more esoteric ideas about gender ambiguity and androgyny. The latter in turn relate to Leonardo and to alchemy. The use of coded language, synecdoche and word play, all elements seen in Cubist collage before the war, could also be an allusion to or practice of hermetic and

alchemical coded language. Duchamp's parody of Leonardo was in fact ambiguous.

The scientific explorations of the world and the body that appeared in Leonardo's work and that were a focus for many nineteenth-century artists, historians and scientists were, in part, emulated by Duchamp in his notes and production of his *La Mariée mise à nu par ses célibataires, même*. (1915-1923) also known as *The Bride Stripped Bare By Her Bachelors, Even*. or *Large Glass*.

It was a fervour of interest in Leonardo's unpublished manuscripts in the nineteenth century that led to wider publication of editions of the manuscripts with facsimile reproductions of drawings and annotated transcriptions of the texts.^[62] In 1855 the French historian Jules Michelet articulated the understanding of Leonardo as someone who 'summarised all the past' and 'anticipated the future'.^[63] This looking back to look forward epitomises the Renaissance quest and anticipates the twentieth-century avant-garde's own internal logic. Dualism then, on many levels, appears a hall mark of both the art production and of certain artists of the period in question. The nineteenth century obsession with Leonardo spanned a diverse set of writers and historians, from Michelet to Baudelaire. Michelet's conception of the Renaissance as an holistic renewal of life, 'a discovery of the world and man' and the 'heroes' of the Renaissance being not 'statesmen and soldiers' but 'artist-prophets, explorers, discoverers, contesters of the old order-Brunelleschi, Leonardo, Copernicus, Luther, Rabelais and others'^[64] is one that resonates through to the early twentieth century avant-garde via the interest in

Leonardo by, amongst others, Baudelaire, Paul Valéry, Sigmund Freud and Apollinaire.

Theodore Reff has made the comparison between Duchamp and Léonardo, particularly in relation to Leonardo's anatomical illustrations of a female torso and the 'mechanics' of the *Bride/Mariée* in Duchamp's *La Mariée* of 1912 and related works.^[65] David Hopkins has also mentioned the comparison, and addresses the hermaphrodite in relation to Duchamp's and Ernst's work.^[66] His emphasis, however, is on the psychological and hermetic/alchemical analogies of their work and there is no attempt to examine the extent of possible contemporary medical references, although Hopkins does go at least some way towards locating the interest in alchemy and such occultism in a more contemporary framework.

The alchemical and hermetic nature of Duchamp's work has been noted by many authors but most miss or ignore the primary context for renewed interest in such ideas in the pre-1914 era.^[67] Linda Dalrymple Henderson has gone some way in redressing this balance and her influential work has reinstated a contemporary modern accent to the articulation of alchemical, hermetic and cabbalistic allusions, imagery and metaphor in Duchamp's work.^[68] Occasionally her zealous pursuit of the modern contemporary and scientific underpinnings of such themes leads to an implicit disavowal of the older occultist signification of certain images, when it seems more likely that the two impulses were of equal importance, not just to Duchamp and his own interests and particular conception of such themes, but also to Apollinaire who cultivated a persona that consistently looked back to classical mythology,

magic, occultism and alchemical themes of the past as well as looked forward to innovative techniques and products of a medico-scientific nature.

Duchamp's notes and writings supporting the genesis of the *The Large Glass* (1915-1923) have been compared to both Leonardo's scientific notes and to those of the alchemist.^[69] As Jarry was a contemporary model for artistic invention based on science, Leonardo was an historical model for Duchamp's scientific note making that appeared in the *Box* of 1914.^[70] The alchemical-type notes that were produced in 1914 mark a point at which Duchamp's interests in science and mathematics became more overtly represented in his work. However, as early as Spring 1912 Apollinaire referred to chemistry and mathematics as sources of inspiration for artists.^[71] Duchamp later claimed that art at that time was 'a laboratory work'.^[72] Indeed the interest in science, art and psychology was a playful one for both Apollinaire and Duchamp; Duchamp acknowledged his desire to discredit science in a 'soft and light manner'.^[73]

The publication of Leonardo's manuscripts in facsimile and French translation by the Rosicrucianist Sâr Péladan in 1908 and 1910 brings together the elements that appear to have most informed Duchamp's interest in the androgyne, both Leonardo and later Péladan's interest in alchemy and the latter's advocacy of the masculine hermaphrodite/androgyne as ideal.^[74]

Duchamp's subversive play with androgyny, in his later photographs and use of his alter ego *Rose Sélavy* (1921 and on) and the spoof of Leonardo (and by extension perhaps Péladan's advocacy of the androgyne in art and spiritual life) in *L.H.O.O.Q* appears to support the case that Duchamp's use of science, alchemy and religion as well as his gender games, was ironical, at

least ambivalent particularly in the light of Apollinarian attitudes to such themes which also seemed to be half playful and half serious.

Jeffrey Weiss has described the climate and cult of mystification and *blague* that marked the pre-war period in Paris, particularly in those avant-garde circles with which both men were associated.^[75] The fusion of genders in *The Large Glass* has been explored in some detail by Hopkins and the combined discussions of different authors on Duchamp's work and *modus operandi* reveal this polyvalent work as signifying both ironical and serious responses to alchemy, to contemporary socio-sexual mores and to the debates of the period that were concerned with depopulation.

Apollinaire again does seem to play an important role in the dissemination of various ideas and interests related to the work. The poet's interest in alchemical texts, discussed above, and in Freemasonry,^[76] and his friendship with Duchamp from the end of 1911 combine to give a more persuasive account of the pivotal role Apollinaire played in the genesis of Duchamp's more scientific interests in his art work from that point. In August 1912 Apollinaire published an article 'Small recipes of Modern Magic' which was later included in *Le Poète Assassiné*.^[77] The text describes the abuse of magic, mediums and hypnotic practices in the nineteenth century and Apollinaire went on to say that the modern magician collaborates with science and the plastic arts to free himself from prejudices, but 'since the modern magician...turns to science and the fine arts for unusual combinations, concerns himself, above all, with hygiene and studying primary matter, his prejudices have greatly diminished.'^[78] The mystification and irony coupled with anti-sense of Jarry-esque proportions in these alchemical and scientific

references permeates Apollinaire's writing in this period and is something that has parallels with Duchamp's notes for the *Large Glass*.

On a basic level the *The Large Glass* combines the masculine (the Bachelors) and the feminine (the Bride) principles in a unification and transmutation of elements that creates the whole androgynous/hermaphroditic entity of the final piece. The myriad of readings engendered by scrutiny of the 'parts' that make up the work range from the anatomical, the bride is dissected and Duchamp's use of terms such as 'capillary tubes' make reference to anatomy, to the alchemical, in the naming of the parts of the Bride and Bachelors [Fig.47] as well as the transmutation of male and female to one entity, reflect the complexity of the parts.

The ironic reference to simultaneously being androgynous and therefore biologically incapable of reproduction and yet also retaining the biological reference to the sex of each part could, as Hopkins suggests, also be an allusion to the 'femme-homme' fashionable in avant-garde circles at the time.^[79] He cites a drawing made by Duchamp in 1909-10 [Fig. 84] normally described as *Young Man Standing*^[80] but suggests it looks more like a woman in man's clothing. It is however similar to images by Juan Gris that were used as illustrations for the satirical periodical *L'Assiette au Beurre*, No. 484, 9 July, 1910. [Fig.85 & 86]

The subject of this edition was 'La Recherche de la Paternité', a topic that was prevalent at this time relating to depopulation statistics and the rise of births amongst the unmarried. The implication from the captions to the illustrations is that a new law regarding paternity has been introduced that has some financial penalties for the unmarried fathers, Gris' pun in Fig. 85 relates

to the idea that the male prostitutes, dressed as femme-hommes (or homme-femmes) will benefit, there being no risk of unwanted paternity suits from them. They declare ‘Cette loi va faire augmenter sensiblement notre clientèle, car avec nous...pas de risques!’. Elsewhere in the same edition the illustration is of a pharmacist’s shop and the two pharmacists are discussing the new law while an old lady sits on a chair waiting for her product to be dispensed, the caption states that since the new law the demand is not for a product that prevents pregnancy, but for one that facilitates it!. [Fig 87] .

This climate of concern with reproduction, depopulation and unmarried mothers was one that Apollinaire had taken up as early as 1907 in two articles for *La Culture Physique*.^[81] It was noted that it was a moot point as to the seriousness of the articles; it seems likely that Apollinaire was both engaging with current debates and more conservative thinking yet simultaneously ‘playing’ towards his avant-garde audience in an ironic and satirical understanding and dualistic signification of the articles. Equally Duchamp’s *Large Glass* employs a visual strategy that simultaneously depicts themes of narcissism, castration, sexual frustration and masturbation. Such readings are supported by related works such as the *Chocolate Grinder* and by Duchamp’s own notes.^[82]

Duchamp’s ‘hilarious picture’^[83] with its confused sexual orientation and activities of the *mariée* and *célibataire* appears to be, as Weiss points out, also a *blague* from a popular music-hall joke that concerned marital infidelity, declaring ‘it was the nation’s bachelors, not its husbands, by whom most French wives actually produced their offspring’.^[84] The issues of depopulation and the threat to the French race as it was perceived were still of concern, if

not gathering momentum, in 1912. Such concerns were being articulated in the daily press^[85] and it is possible, given Duchamp's association with Apollinaire in this period, that the theme suggested the possibility of an ironic and playful allusion in the initial stages of the *Large Glass*. It has also been suggested that writers linked to Bergsonism in the pre-First World War period attributed declining birth rates to 'neurasthenic dandyism'.^[86] Of course Apollinaire continued to address this theme in his play *Les Mamelles de Tirésias* of 1917 where in the opening preface he remarks that:

Je leur ai signalé le grave danger reconnu de tous qu'il y a pour une nation qui veut être prospère et puissante à ne pas faire d'enfants, et pour y remédier je leur ai indiqué qu'il suffisait d'en faire.^[87]

The character of *Tirésias* becomes a femme-homme, when Thérèse converts to feminism and loses her breasts, and thus becomes the male *Tirésias*. This surrealist drama and parody of both classical mythology and contemporary medico-scientific debate concerning depopulation embodies what was considered a central preoccupation of the male Surrealist artists, 'the symbolic transference of the ...procreative process from the female to the male.'^[88] These multiple references to androgyny, science, reproduction and sexuality reflected both the interests of the wider society and more esoteric, hermetically coded references that were deciphered only by the initiated.

The use of sources of a more medical nature by Apollinaire has been addressed in this thesis. A copy of *La Chronique Médicale* owned by Apollinaire contained a number of articles that would have had resonance for the poet, not least one concerning 'La Repopulation'.^[89] Another source by the prolific writer and *bicéphale* Dr Witkowski appears in which the entire first book was devoted to the female breast, its anomalies, deformities, poetry

and curiosities of both a literary and medical nature related to this topic.^[90]

Apollinaire had copies of Witkowski's works, although this is not one specifically owned by Apollinaire it is typical of the curious and bizarre cross-cultural interests of its author, and of similar articles to be found in the medical journals that Apollinaire did own. In Witkowski's *Tetoniana* every possible topic of discussion vis à vis breasts is covered, from medical pathologies, to anatomical differences between 'races', to 'freaks of nature', three breasted women, women with absence of breasts and so on. The Hottentot Venus, Sarah Bartman is a feature of the discussion (p.44) and there are historical and humorous images and anecdotes ranging from the serious to the farcical [See fig. 88 a caricature of Sarah Bernhardt by André Gill as a large breasted Sphynx], with discussions of a serious nature about the merits of breast feeding and the health of the next generation to criticism of corsets. It is precisely this bizarre admixture of references that would appeal to Apollinaire and it can be seen as part of a particular genre of works that combined the arts and sciences to which he was drawn, and which may have contributed to the medical allusions in his work and in the work of artists with whom he was connected.

4.3 Picasso, de Chirico, Apollinaire and Androgyny: a postscript.

Chapter three briefly discussed the masculinisation of the females represented in Picasso's *Les Femmes d'Alger (O. J. R. 1907)*. The discussion of *femme-homme* and the link to the classical and to the alchemical gynander can be extended to include other works by Picasso's works from after 1907, when

a combination of primitivizing aesthetics and interest in such esoteric ideas as androgyny can be seen.

Apollinaire wrote about Picasso's use of androgynous figures as early as 1905, and the same review articulated a post-Symbolist penchant for the conception of the androgyne as young male adolescent.^[91] The terms used by Apollinaire articulated both the physiological description of androgyny as well as the symbolic. In hermetic, coded language Apollinaire alludes to such figures as Hermes Trismegistus.^[92]

The focus for Apollinaire in Picasso's work was on the feminized-male, in works such as *Acrobat and Young Harlequin*, Paris (1905), *Family of Acrobats with an Ape*, Paris (1905) and *Jester on Horse Back*, Paris (1905).^[93] This gender ambiguity appears to continue in Picasso's works from 1906, see for example *Nude Boy*, Paris (1906).^[94] [Fig.89] In this period gender ambiguity is extended more to the females in Picasso's work. In paintings and drawings such as *Female Nude seated with her legs crossed*, Paris, Autumn-Winter (1906), and *Two Female Nudes*, of the same date [Figs.90 &91] we see the female body represented as more masculine, something which by early 1907 has been taken to an extreme, see for example *Sketch for standing female-nude*, Winter 1906-1907, and *Seated Woman holding her foot*, Spring 1907. [figs.92&93] These masculinised females anticipate the representation of females in *Les Demoiselles*, and are a feature of the preliminary sketches that Picasso carried out for that work. They also allude to the conception of the gynander, as articulated by Pelédan and others, as discussed above.

The contemporary socio-cultural reading of the masculinized female runs as a counter-side to the Symbolist and post-Symbolist interest in the androgynous

and feminized male. This was seen by different sectors of society in paradoxical terms, on the one hand as an ideal and on the other as a negative trait and something that was part of the cause of the French problem of depopulation.

The decadence of the *fin-de-siècle* provided a climate in which homosexuality was more easily expressed and the androgyne was something that combined, as Oscar Wilde said, ‘the grace of Adonis with the beauty of Helen’.^[95] Androgyny was a popular topic in both literature and art of the *fin-de-siècle* and the Decadent movement specifically. Used to legitimise so-called sexual ‘deviancy’,^[96] and attacks on normative masculinity and femininity, there was however, still a division between the sexes that true masculinity represented and was thought by the general public to be essential to an ordered and procreative society. The rise in medical studies concerning pathological and deviant sexuality, in short the *scientia sexualis* of the nineteenth century, gave the discussions of degeneracy a focus that equated the feminized male-body with deviancy, with lack of power and with lack of reproductive strength. ‘Weak and womanly men’^[97] were associated with decadence, degeneracy and ‘neurasthenic dandyism’^[98]. To counter such ‘vices’ sport became part of moral and hygiene discourses that were focused on regeneration of the French nation, and as such heterosexual-masculinity was promoted as a physiological ideal.^[99]

Within this climate the period up to and including the First World War witnessed a resurgence of interest in *La culture physique* and, as Tamar Garb has shown, a classical, canonical, ideal model of the body was contrasted to that of the effeminate, weak, or degenerate male body.^[100] [Fig. 94] A page

from the periodical *La Culture Physique*, November 1904 shows the body before and after physical training. [Fig.95] The body-types conform to, on the one hand the 'weak and womanly' body-type and on the other, the muscular and toned 'ideal' based on prototypes found in classical sculpture.

This particular image of the weak body-type was, as Mosse has argued, always associated with the 'outsider' an 'otherness' that was part of bourgeois consciousness, such 'outsiders' were 'always represented for what they were not rather than what they were.'^[101] This was something that became a leitmotif of the representation of 'otherness', contrasting it to the 'ideal'. Given Apollinaire's connection with *La Culture Physique* (see discussion above and chapter 3) and the pan-European concern with sport, physical strength and fear of decadence and degeneracy in the run up to the First World War, it seems plausible to suggest that Giorgio de Chirico's painting *The Child's Brain* (1914) [Fig.96] owes something to these medico-cultural discourses of ideal, contrasted with, weak, feminized, male body-types.

In the period 1913-14 de Chirico was close to Apollinaire, and his work was singled out by the poet for praise and discussion from as early as 1913 when Apollinaire described de Chirico's paintings as 'metaphysical landscapes'.^[102] Apollinaire's relationship with de Chirico has been documented and the painter's enthusiasm for mythological and classical themes was something to which Apollinaire was drawn.^[103] The mystification of de Chirico's work was something that exasperated colleagues of Apollinaire and it has been suggested that some sort of artistic 'collaboration' was evident between the two in these years.^[104] Certainly the mystification of meaning in *The Child's Brain* is evident, more so than in de Chirico's other

important work of the period, *Le portrait prémonitoire de Guillaume Apollinaire* (1914). The latter will be briefly discussed in chapter 5.

The Child's Brain is frequently interpreted as a fantasy portrait of his father Evariste de Chirico.^[105] However this is not convincing since the features of the male figure in the painting are far removed from the full-bearded features of the painter's father.^[106] Evariste de Chirico was described by his son as very much a nineteenth-century gentleman, 'brave, loyal and intelligent', but his relationship with his son was also cold and distant.^[107] He also stated that his father went against the aristocratic family tradition into which he was born and chose to work.^[108] These ambivalent feelings towards his father may have played a part in the strange representation of the male body in this work.

Whatever the psychological ramifications (Soby et al have accepted the Freudian readings of this work almost without question) the material evidence of a physiology that was far removed from the ideal, and a classical 'ideal' of the body that was eminently familiar to de Chirico, reveals the possibility of at least an additional source of reference for the artist. The fusion of psychological, emblematic and hermetically coded meanings in de Chirico's work appears, in this period particularly, to owe something to Apollinairean interests. The medical references in works such as *The Song of Love* and other works from 1914 coincide with Apollinaire's growing interest in medical discourse and in psychological aspects of medicine in this period. (These will be addressed in chapter 5 below.) Given the climate of cross-fertilisation of artistic interest and ideas it is not implausible to suggest some relationship between de Chirico's representation of the weak, feminized body of masculinity and those found in contemporary popular culture such as *La*

Culture Physique. Indeed the 'moustachioed' Professor Rodolphe featured in the 'before' and 'after' images in *La Culture Physique* [Fig.95] does bear a typological similarity to de Chirico's representation of the male figure in *The Child's Brain*.

A further medical connection has been suggested in the comparison of this work with a portrait of Dr Julius Langbehn by Hans Thoma.^[109] [Fig.97] Entitled *Der Philosoph mit dem Ei* (1886) the alchemical and mystical element is apparent and something with which both de Chirico and Apollinaire engaged in this period. The portrait by Thoma was also considered an *hommage* to Nietzsche^[110]. Given the importance of Nietzsche to de Chirico^[111], it could be another possible source of the strange physiology of de Chirico's male figure.

There is also a possibility of seeing the work as drawing on anti-Semitic discourses, whether this is ironic or not is unclear but an examination of the cultural representation of the Jew's body in this period is revealing with regards to de Chirico's painting. The Jewish body has variously been represented as 'other', as different from the white, Western ideal exemplified in physiological discourses by the Greek 'ideal' of the *Apollo Belvedere* (see chapter 3 for further discussion). The Jew has occupied a similar position in cultural discourse as that of the prostitute, the insane, the criminal, the African, all processed as 'primitives' and degenerates.^[112] Gilman has written on the cultural perceptions of the Jew, he notes that

The Jew's compromised masculinity, his 'femininity' is one of his defining qualities. he is not quite a man and yet certainly not a woman[...]he is "constructed as a third sex"^[113]

By the nineteenth century the male Jew was seen as feminized and belonging to an 'inferior race'.^[114] Indeed a contemporary and scandalous German text, Oskar Panizza's *The Council of Love* (1895) provided representations of the Jew that drew upon contemporary discourses of degeneracy but also on Nietzschean ideology.^[115] Panizza, the son of an Italian Catholic father was born in Bavaria in 1853. He trained as a physician at the University of Munich and was also a poet and writer. His anti-religious poetry had earned him hostility from both church and state but the scandal engendered by the publication of his play *The Council of Love* led to Panizza being imprisoned for a year.^[116] He had also been a doctor in a mental asylum in Munich from 1882 --1884, and lectured on 'Genius and Madness' in 1891, but had himself succumbed to mental illness in the early 1900s.^[117] Panizza's play was concerned with syphilis, and was a blasphemous farce. Gilman has argued that the Devil in Panizza's play was represented as the diseased male Jewish body.^[118] The yellowing and pale skin, the limping leg all signify at the turn of the century, the degenerate Jew. Gilman has argued that the limping Devil and limping Jew are interchangeable in this period and the limping gait of the syphilitic was already well established in the culture of that time. Dr Joseph Babinski, a Parisian neurologist, had successfully shown in 1896 that the syphilitic limps due to a diminished plantar reflex and this was a sign of neurosyphilis.^[119] The image of the Jew's body as the diseased/degenerate body continued into the twentieth century. Fig.98, shows the contrast between the 'healthy chest of a 'real' man' and that of a 'weakling'.^[120]

The comparison to de Chirico's work is interesting. In *The Child's Brain* it appears that de Chirico had reversed the values of the head and torso in

Thoma's portrait: the eyes are closed on his male figure and the body-type is not the 'healthy' and muscular body-type of Dr Langbehn. The male torso in *The Child's Brain* conforms more to the images of 'weaklings' and feminized or diseased men. The particular chest type conforms to that of the *habitus phthisicus*, the clearest sign of 'inherited diathesis', a predisposition to tuberculosis.

The cultural image of the consumptive was an ambiguous one. In narrative fiction such as Dumas' *The Lady of the Camellias*, the female tubercular is an attractive, tragic fantasy and, as in many *fin-de-siècle* novels, tuberculosis is aligned with a bohemian spirit. Yet the combination of Jewish male tubercular body runs counter to this and is seen as unaesthetic, corrupting and diseased.^[121] By the 1870s the term *infeminisce* was being used to describe the 'feminisme' of the male through the effects of disease, such as tuberculosis.^[122]

The publication of Otto Weininger's *Geschlecht und Charakter* in 1903 also greatly contributed to the anti-Semitic image of the Jew. Weininger (1880-1903) born a Jew in Vienna published his revised dissertation shortly before his suicide. His ideas about race and gender were revolutionary but very much a product of the particular socio-historical intellectual circles to which he was exposed. He claimed that no one was, in fact, a single sex but a mix of male and female, he used science to support these arguments when it was expedient to do so but ignored it when it undermined them. *Geschlecht und Charakter*, a work of intense self-hatred towards his Jewish origins (Weininger converted to Protestantism), was reviewed in some of the most

widely read eugenics journals of the day and its impact upon scientific discourses of gender and Jewishness was unprecedented.^[123]

A popular *fin-de-siècle* Viennese view of the relationship between the body of the male Jew and that of women centred on the sexual organs. The Viennese slang for the clitoris in this period was simply *Jud* (Jew) and the term used to describe female masturbation was ‘to play with the Jew’.^[124] Thus the ‘small organ’ of female sexuality became ‘the *pars par toto* for the Jew with his circumcised, shortened organ.’^[125] In cultural terms then, the pejorative synthesis of the female body with that of the male Jew because of their ‘defective’ sexuality and potential degeneracy reflected the commonplace conception of the ‘essential male’ as the antithesis of the Jewish male and female identity.^[126] In *The Child’s Brain*, the red book-marker in the yellow book in front of the male torso seems to suggest an allusion to, or signifier of, the male sexual organ, in this case diminished, shortened and thus a reinforcing signifier of the male figure’s *feminisme*.

It seems plausible then to suggest that aspects from more medico-cultural discourses have informed this work on some levels. The work is based on mystification and unresolvable meaning. The suggestions above do not offer a solution to its meaning, but suggest hitherto overlooked relationships and connections that may have had a bearing on the work’s polyvalent nature.^[127]

Notes To Chapter Four.

[1] Prof. George T. Noszlopy established the link between Apollinaire's interest in such themes and avant-garde artists work such as Raoul Dufy, Robert Delaunay, Marie Laurencin, and Marc Chagall. See George T. Noszlopy 'Apollinaire, Allegorical Imagery and The Visual Arts', in *Forum for Modern Language Studies*, IX, No.1 (1973) pp 49-73, reprinted in I. Higgins (ed) *Literature and the plastic Arts 1880-1930*. (Edinburgh 1974) and in *Robert Delaunay's La Ville de Paris: a Temporary revival of the humanistic practice of joint authorship*. (Birmingham: The Article Press, University of Central England, Birmingham Institute of Art & Design, 1994). M. Poupon mentions Apollinaire's interest in folklore and occult-religious philosophies in 'L'Année allemande d'Apollinaire', *La Revue des lettres Modernes*, Nos. 183-188 (1968) p.9. Dr Adrian Hicken has explored the theme in 'Simultanism and Surnaturalisme: Chagall, de Chirico, Apollinaire and Cubist Paris, 1910-1914.' Unpublished PhD Thesis, The Courtauld Institute of Art, 1987, and in his recent publication *Apollinaire, Cubism and Orphism*. (Aldershot: Ashgate Publishing, 2002). Examination of Apollinaire's own library, as catalogued in Gilbert Boudar & Michel Décaudin (eds) *Catalogue de La Bibliothèque de Guillaume Apollinaire* (Paris: CNRS, 1983) Vol I & Vol. II (1987) reveals many texts and periodicals with such themes. One periodical particularly, *Les Nouveaux Horizons de la Science et de la Pensée. L'Hyperchimie-Rosa Alchemica*. Directed and founded by Jollivet Castelot of which Apollinaire had four copies from 1910, included articles on hermetic symbolism, heraldic art, alchemy, theosophy and occultism as well as reports on more scientific discoveries and medical 'cures' such as '606', Ehrlich's treatment for syphilis. This text included contributions from authors such as Dr Marc Haven (whose edition of *Mutus Libre* Apollinaire reviewed in 1914: 'Hermetic Emblems', *Paris Journal* July 17, 1914) and references to contemporary Doctors such as Dr Doyen. (see chapter two for further details on Doctor Doyen).

[2] Pascal Rousseau, 'Le Portrait d'Apollinaire par Robert Delaunay. La Dissection Cubiste et l'Esthétique de la Fragmentation.' in *La Revue des Lettres Modernes. (Guillaume Apollinaire)* No. 2, Paris 2001.

[3] The reference to the connection with *La Culture physique* was anticipated by Dr Adrian Hicken (2002) op.cit. p.46, and the emblematic comparison to Alciati's 'Ars Naturam Adiuuans' 1550, was first made by Prof. George T. Noszlopy (1973) op.cit. p.53, and taken up by Hicken, *ibid*.

[4] Gaile-Ann Haessly has addressed Picasso and androgyny in *Picasso On Androgyny: From Symbolism Through Surrealism* published PhD Thesis, (Ann Arbor: UMI research press, 1984). However she totally avoids the wider signification of the 'androgynie' to artists working in pre-war Paris. Despite quoting on occasion from Apollinaire and cursory acknowledgement of Symbolist and metaphysical understanding of the 'signs' of the androgynie, the alchemical and contemporary medical implications are conspicuous by their

absence. Her approach is reductionist, using a vague form of formalist semiotics to analyse the works in which she finds evidence of 'the androgyne'. Its utility for this thesis was, in effect, redundant.

[5] Noszlopy (1973) op.cit, Hicken (1987 & 2002) op.cit. and David Hopkins addressed the theme in relation to Duchamp and Ernst in 'Hermeticism, Catholicism and Gender as Structure: A Comparative Study of Themes In The Work of Marcel Duchamp and Max Ernst.' Unpublished PhD thesis, University of Essex, 1989, and in *Marcel Duchamp and Max Ernst. The Bride Shared.* (Oxford: Clarendon Press, 1998).

[6] See William Rubin's response to David Lomas's article on Picasso and *Les Demoiselles d'Avignon* in 'Correspondence', *Art History*, vol. 17, No.2, June 1994, pp.255-257.

[7] Hicken (2002) op cit. p.47. He notes Apollinaire's awareness of Robert Fludd's work by this time and in 1907 Apollinaire's friend André Salmon acknowledges the poet's mystical and alchemical leanings in *Les Féeries*. Fludd, a Renaissance philosopher and physician was a prolific writer. His medical texts *Anatomiae amphitheatrum* (1623) and *Medicina catholica* (1629-1631) provide in a metaphysical and mystical context, the concept of man as microcosm of the world. See exhibition catalogue (no author) *High Matter, Dark Language: The Philosophy of Robert Fludd (1547-1637)* (London: The Wellcome Institute for the History of Medicine, 1984) p.2. Defender of Rosicrucianism, writer on the unity of arts and sciences, Paracelsian and cosmologist, Fludd's importance to Renaissance thought has been acknowledged by numerous authors including Francis A. Yates, Walter Pagel, Serge Hutin and Allan Debus. See Bibliography, *ibid*, p.29-30. Noszlopy and Hicken also make reference to the connection with Fludd in Chagall's work see discussion below in this chapter.

[8] This was first noted and discussed in detail by Noszlopy (1973) op.cit. p.64.

[9] *ibid*.

[10] This painting is often dated as 1911-12, but Hicken (2002) makes a detailed case for it being later and more likely 1913-1914, see Hicken (2002) op.cit. pp129-131. Particularly telling is the iconography of the heart motif in *Hommage* which can be found in *Paris Through The Window*, 1913-14, where the image of the *Janus* faced man holds a heart in his palm. Hicken gives a detailed argument to support the case of the two paintings being coeval. The iconography bears a specifically Apollinairean connotation as will be discussed below.

[11] Both Noszlopy (1973) op.cit, p.63 and Hicken (2002) op.cit. p.14 and p.133, have made this observation.

[12] Noszlopy (1973) op.cit. p.63. The Grand Roue of Paris was the giant ferris wheel erected for the Paris Worlds Fair of 1900.

[13] Ibid.p.62.

[14] For example Fludd's diagrams of the macrocosm and microcosm in R. Fludd, *Utriusque Cosmi... historia*, (Frankfurt 1621) as well as images of the planets and structure of the universe found in A. Cellarius *Harmonia Macrocosmica* (Amsterdam 1660). Human form in Renaissance texts show 'man as the measure of the universe', found for example, in Agrippa von Nettesheim's *De Occulta Philosophia* which depicts man in a cosmic circle, following Vitruvius's figures. Leonardo's 'Vitruvian man' and Fludd's *Utriusque Cosmi...historia* vol.1 & 2 (1617 & 1619) shows man as centre of the cosmos in the frontispiece.[fig.99]

[15] The poets whose works claimed to be a revelation of Orpheus 'seem to have been the first to take the idea of the androgyne being in a half-real, half symbolic sense.' The primordial unity expressed through the bisexual being divided in two relates to the Orphic myth. See Marie Delcourt, *Hermaphrodite: Myths and Rites of The Bisexual figure In Classical Antiquity*. trans. J.Nicholson, (Studio Books, 1961) p.67 & p.68. For more detail on Apollinaire's conception of Orphic art see Noszlopy and Hicken, op.cit; J. E. Bernstock, 'Orpheus the Pre-War Hero' in *Under The Spell of Orpheus. The Persistence of a Myth in Twentieth Century Art* (Carbondale and Edwardsville: Southern Illinois University Press, 1991) and Virginia Spate, *Orphism: The Evolution of Non-figurative Painting in Paris 1910-1914*. (Oxford: Clarendon Press, 1979).

[16] Hicken (2002) op.cit, p.90 also notes this. The cat had significance to Apollinaire, not just in the poet's reference to 'La Chat' in *Bestiaire*, but also to Baudelaire and his circle who adopted the cat as a symbol of their own sensuality. Hicken presents detailed discussion of the themes and connection to Apollinairean iconography, see Hicken, op.cit, pp.90-93 .

[17] This has been noted by many authors including, Susan Compton, *Chagall Exhibition Catalogue*, (Royal Academy of Arts, 1985);Shearer West, *Fin De Siècle: Art and Society In an Age of Uncertainty*. (Bloomsbury, 1993) p.81, and Hicken (2002) p.135 op.cit. expands on this idea.

[18] Alchemy, although concerned with material practices of producing change in minerals, used highly figurative language and elaborate metaphor. Although early definitions of alchemy, such as those of Albertus Magnus in the thirteenth century concentrated on the making of noble metals, alchemical discourse has always had a theoretical aspect that used 'metaphor, enigma, allegory and riddle.' See Gareth Roberts, *The Language Of Alchemy* (The British Library Centre for The Book, 1997) p.5. Such strategies would have appealed to Apollinaire's use of puns, word play, paradox and enigma. Natasha Staller has addressed the use of hermetic language by the avant-garde and in other sources in 'Babel: Hermetic Languages, Universal Languages, and Anti-Languages in Fin de Siècle Parisian Culture.' *The Art Bulletin*, Vol. LXXVI, No.2, June (1994).

[19] Micheal T. Walton, Robert M. Fineman and Phyllis J. Walton, 'Holy Hermaphrodites and Medical Facts: The Depiction of Hermaphrodites in alchemy and Medicine', in *Cauda Pavonis* Washington State University, Vol.18, Nos 1 & 2, Spring and Fall (1999) p.32.

[20] See M. Maier *Atlanta Fugiens* (Oppenheim 1618) Fig.76, reproduced Alaxander Roob, *The Hermetic Museum: Alchemy and Mystecism*. (Köln: Benedikt Taschen, 1997) p.457.

[21] It can also simultaneously represent Chagall himself as the unifying principle between the various personalities referenced around the heart motif, and the painter's name placed above and between the two 'heads' of the hermaphrodite figure has been argued to associate the painter with the mystic signification of the androgyne and Orphic art. See Hicken (2002) op.cit. p.134.

[22] Hicken (2002) op.cit. p.134. Hicken notes that Apollinaire probably came to know Sâr Péladan through their literary associations with the *Mercure de France* and membership of the Central Council For The Defence of Free Writers after it was formed in December 1913. See *ibid*, note 49, pp.196-197.

[23] Joséphin Péladan *Les Idées et les formes de L'Androgyne. Théorie Plastique*. (Paris: Sansot, 1910) pp.16-17, as quoted West, op.cit. p.81. It should be noted that Joséph Péladan (also known as Sâr Péladan) adopted the feminized version of his name in his fictional writings in support of the androgynous cause.

[24] Hermaphroditus was, of course, the son of Aphrodite and Hermes (Venus and Mercury). John Lemprière, *Classical Dictionary* (Bracken Books, 1994) p.305. (First published 1788, revised 1850.)

[25] From Joséphin Péledan, *Le Gynandre* (Paris 1891) quoted West, op.cit. p.82.

[26] Apart from various exhibitions and displays of medical 'abnormalities' mentioned below and in chapter two briefly, the images of so called 'freaks of nature' and deformity appeared in such publications as *Nouvelle Iconographie de la Salpêtrière* No.12 (1899). This publication also included images of hermaphrodites (see discussion below). Satirical periodicals such as *L'Assiette au Beurre* contained references to physical deformities, see for example 'Les Peaux Humaines', *L'Assiette au Beurre*, No.561, 13 Janvier, 1912, [fig.100 and fig.56]. The medical-arts based periodicals of which Apollinaire owned copies, *Aesculape*, *La Chronique Médicale* and *La France Médicale*, frequently carried articles and illustrations or photographs of a similar nature.

[27] Ambroise Paré, *The workes of Ambrose Parey* trans. Thomas Johnson (London, 1634) contained 'Of Monsters and Prodigies', as cited in Lorraine Daston and Katharine Park, 'Hermaphrodites in Renaissance France.' *Critical*

Matrix Vol.1, No.5 (1985); Walton et al, op.cit ; Ann Jones and Peter Stallybrass 'Fetishizing Gender: Constructing the Hermaphrodite in Renaissance Europe' in Julia Epstein and Kristina Straub (eds) *Body Guards. The Cultural Politics of Gender Ambiguity* (Routledge 1991).

[28] See Paré, *ibid*.

[29] Henry Meige (1866-1940) studied medicine under Charcot and worked at the Salpêtrière hospital. A contemporary of Babinski and Gilles de Tourette he undertook studies during the First World War in collaboration with his colleague Dr Pierre Marie (1853-1940) that led to enhanced knowledge of neuropathologies. He also worked at the Ecole des Beaux-Arts, and succeeded Richer as Professor of anatomy there. Meige was also editor of *Nouvelle Iconographie de la Salpêtrière*. His lifelong interest in art was expressed through his many articles on the topic of art and medicine in periodicals such as *Aesculape*, *La Chronique Médicale* and *La France Médicale*.

[30] Henry Meige 'L'infantilisme, Le Féminisme et les Hermaphrodites Antiques.' *L'Anthropologie*, Paris, No.6 (1895) pp.257-275.

[31] 'Il est tout au moins permis de faire sortir un certain nombre d'androgynes du domaine des créations fictives, en montrant qu'il existe dans la nature des anomalies corporelles dont ils sont l'exacte reproduction'. *Ibid*, p.257.

[32] It is worth quoting Meige in full:

'S'il est vrai que les artistes grecs, séduits surtout par l'harmonie des formes, s'attachèrent peu à rendre les expression choquantes de la maladie, on a eu tort de prétendre qu'ils se soient systématiquement refusés à figurer les déformations corporelles ou les attitudes désordonnées. Nombre de personnages, soi-disant grotesques, représentés sur les vases peints ou par des figurines en terre cuite, sont des reproductions de difformités pathologiques aisément reconnaissables. Si d'ailleurs, les irrégularités du corps humain sont, dans la majorité des cas, inharmonieuses, souvent même répugnantes, elles peuvent parfois conserver les qualités du beau, et, en vertu de certaines croyances, ou sous l'influence d'un goût passager, être recherchées par des artistes enclins à sacrifier à l'esthétique du jour. C'est, selon toute vraisemblance, ce qui se produit en Grèce, quand la mythologie, la philosophie et l'esthétique s'unirent pour placer à côté des plus belles formes humaines une anomalie corporelle que les sculpteurs idéalisèrent de tout leur talent. Tel est le cas des Hermaphrodites antiques.' Meige, *ibid*, p.260.

[33] See chapter two of this thesis for discussion of Golberg and avant-garde art.

[34] Meige, *op.cit*, pp.262 & 263.

[35] Meige, *op.cit*.pp.263 and 264.

[36] Dr Paul Richer 'Les Hermaphrodites dans l'Art' in *Nouvelle Iconographie de la Salpêtrière* No.6, 1892.

[37] Dr Bouquet 'Un Cas d'Hermaphrodisme'; L. R. 'Personnage bicéphale' *La Chronique Médicale* Paris, 1908, p.430 &431.

[38] *Aesculape*, Janvier, 1912, pp.13-18. Dr Verdier 'Notes médicales sur Léonard da Vinci.[...] Ses portraits empruntent leur charme troublant à l'ambiguïté de leur type androgyne. 11 illustr.'; *Aesculape*, Avril, 1912, p.96 Supplément trimestriel, Dr Lucien Nass 'Les Hermaphrodites devant les tribunaux du moyen âge.' 6 illustr.; *Aesculape*, Juillet, 1912 Supplément trimestriel, Dr Lucien Nass, 'Marie-Christine Zanneboni, Hermaphrodite'. 1 illustr.

[39] Jan Bondeson has explored the historical evidence of the *bicéphale/dicephalus* from diverse sources. Jan Bondeson, *The Two Headed Boy & Other Medical Marvels*. (Ithaca & London: Cornell University Press, 2000). Sources ranged from Samuel Pepys who in 1668 discovered the gravestone for the 'Fair Maidens of Foscott' a 'two headed' girl, in the village of Norton St. Philip, Somerset, reported in an anonymous article in the *British Medical Journal*, No1, 1902, pp.915-16 and by J. J. Hissey *Through Ten English Counties* (London, 1894) pp.141-44, (pp.160-163 *ibid.*); Fortunio Liceti's *De Monstris* (1665) p.165 *ibid.*; 'Ritta-Christina, L'Enfant Bicéphale' in *La Bulletin des sciences médicales*, No.18, (1829) pp.168-173 *ibid.* The Tocci brothers, *bicéphales* who were exhibited in Paris in May 1878, and throughout the 1890s were exhibited in major European cities and even travelled to America. (see pp.176-181 *ibid.*). Eventually the twins settled in Venice, but were still in the public eye in 1904 when the French and Italian newspapers reported that the two Tocci brothers had married two separate women. There were humorous debates in the newspapers and medical journals about the legal implications of such an extraordinary marriage. The Tocci brothers shared one set of genitalia. A French teratologist, Marcel Baudoin speculated that each twin was the legal owner of one of their testicles, M. Baudoin, *Gazette Médicale de Paris*, Sér.13, No.4 (1904) p.200, (as cited p.181 & p.292 *ibid.*). A lewd and bawdy book entitled *La Vie Sexuelle des Monstres* by Dr A. P.de Liptay appeared that was inspired by the controversy. (p181, *ibid.*). The Tocci twins were variously reported as still being alive in 1912 and that they died in 1940 aged 63. (p.182, *ibid.*). It is precisely the modern fascination and 'scandal' of such *bicéphales* that ensured the availability of images related to such medical pathologies to the artists and writers working in pre-War Paris.

[40] Delcourt, *op.cit.* p.71, discusses the Orphic symbolism of the androgyne and bisexuality.

[41] Meige, *op.cit.*, pp.268 & 269.

[42] Meige, p.264 cites Dr.Paul Richer 'Les Hermaphrodites dans l'Art' in *Nouvelle Iconographie de la Salpêtrière* No.6, 1892. The terms *infantilism*

and *féminisme* Meige points out, are recent ones and not to be found in any medical encyclopaedias. He also notes that often there is little or no distinction between the two definitions. Meige's description of the morphology of the *infantilism/ féminisme* found in one of his numerous case studies talks of the atrophied genitals, a long cylindrical torso, no body hair in the pubic region, face or under arm region, the buttocks are large with fatty tissue, and the thighs are wide at the top and get slimmer towards the knee, giving a feminine shape. Although Chagall's painting is obviously an artistic representation and whilst it is not being claimed that he had direct knowledge of Meige's article, it is possible to make a case for the imagery of the hermaphrodite and *infantilism / féminisme* that Meige and Richer discussed in various publications, being more freely and widely available and perhaps part of the specific socio-historical construct of what the hermaphrodite/androgyné looked like for those artists and writers operating in Paris at that time.

[43] Both Noszlopy, op.cit and Hicken, op.cit have documented this in more detail. Apollinaire's identification with the Orphic tradition dates back at least to 1902 when he adopted his pseudonym Apollinaire. (He was born Wilhelm Albert Wladimir Alexandre Apollinaris de Kostrowitsky.) From this point his interpretation of sun symbolism and cryptic reference to Orphic themes in his poetry and writing became an intensely personal mythology. See Hicken (2002) p.45, for more detail.

[44] This was also, coincidentally noted by Gerald Weissmann, *The Doctor With Two Heads and Other Essays* (New York: Alfred A.Knopf, 1990) p.9. The discovery I made of the term *bicéphale* and its historically specific, colloquial meaning came from the articles in *La Chronique Médicale* and only subsequently discovered that Weissmann had published similar information in 1990. He was also examining the work of Dr Chicotot so it is not that surprising that the meaning of the term was independently arrived at from examination of similar sources.

[45] Dr G. J. Witkowsky, *Anecdotes Médicales*. (Paris: E. Flammarion, no date). Dr G. J. Witkowsky, *Les Drôleries Médicales*. (Paris: C. Marpon et E. Flammarion, 1884), see BD I., pp.162 & 163.

[46] Dr Grasset also wrote under the pseudonym Gasters. He produced *Dans un Cabinet de Médecin: Pièce En Un Acte* (Paris, 1905); *Demi-Fous et Demi- Responsables* (Paris, 1907) and *L'Occultisme* (Montpellier, 1907). Grasset was a leading French psychiatrist, his work in that field and his combined interest and writing on Occultism is addressed again in chapter five of this thesis.

[47] Dr Chicotot for instance.

[48] Dr Lucien Nass, 'Médecins peintres' and 'Un médecin peintre, le Dr Chicotot' *La Chronique Médicale*, No.1, 1st Jan.(1907) pp.82 & 246.

[49] Dr Quercus 'Le Premier Salon Des Médecins' *Aesculape*, No.3, March

1911, p.71. This was presented as a retrospective of the first Salon to appear in the month before the 1911 Annual Salon Des Médecins which was reviewed by the same author in *Aesculape*, No 4, April 1911 pp.92-96. Apollinaire had copies from 1912, 1913, 1914. These Salons were reviewed annually so it is more than likely he was aware of them and the argotic meaning of the term *bicéphale*.

[50] 'Le dîner des *bicéphales*' no author, *La Chronique Médicale* 1906, p. 641. Amongst those artists listed as *bicéphales* were Ribemont-Dessaignes, Paul Richer, Charles Richet, Chicoteau (*sic*) Richelot and Cazalis. Dr Ribemont-Dessaignes was the father of George Ribemont-Dessaignes, painter and friend of Picabia and Duchamp and contributor to 291 and 391.

[51] G. Apollinaire 'Marc Chagall' *Paris Journal*, 2 June, 1914. in BR. p.400.

[52] Noszlopy (1994) p.9. op.cit

[53] 'Episola ad...Hermannum archiepiscopum Coloniensem de lapide philosophico' *THEATRUM CHEMICUM, praecipuus selectorum auctorum tractus...continens*. Vol. V, Ursellis, (1622) p.899, as quoted C. G. Jung *Psychology and Alchemy* trans. R. F. C. Hull, first pub.1944, (Routledge, 1993) p.80 & note 33.

[54] Coincidentally *Fantasio* No.161, 1 Avril, 1913, pp.647-648 contained a satirical article 'L'Affaire Janus' by José De Bérays, concerning a doctor, Jules Moinaux, who had practiced a dubious surgical treatment on women to remove wrinkles and excess skin. His brochure contained commendations from other doctors including 'Le docteur S...' who compared this doctor to Phidias and Praxiteles, he was a 'sculpteur-médecin'. His victim, Mme.Janus demanded, at the subsequent tribunal, 25000 Francs damages. The doctor's apparent 'Operation bénigne et courante' had the outcome of 'le déplacement d'un mamelon'!. The article ends 'Défends la peau contre ton médecin!'. This edition of *Fantasio* also contained a brief, slightly critical review of Apollinaire's *Alcools*, p.831. This is just one of a plethora of examples of cross cultural references of an artistic and medical kind to be found in the popular press of the day. The Janus head in Chagall's painting could also be alluding to the dual interests of Arts and Sciences for figures like Apollinaire

[55] Noszlopy (1994) op.cit, p.9 and note 27. Hicken also notes the profile of Apollinaire and it's correspondence with the profile of the Janus head in Chagall's painting, Hicken (2002) op.cit., p.97.

[56] Noszlopy,(1994) *ibid*. Noszlopy has noted this work was known to Chagall's friend the poet Blaise Cendrars (*ibid*) and has also noted Apollinaire's awareness of Fludd's work, Noszlopy (1973) op.cit, pp.72-3.

[57] For a detailed and slightly different reading of the iconographic elements in Chagall's painting see Hicken (2002) op.cit., pp.95-98.

[58] Nozsloty (1973 and 1994)) op.cit. discusses Horapollo's *Hieroglyphica* and its significance for Apollinaire, Dufy and the artists associated with the poet. Hicken also addresses this reference, Hicken (2002) op.cit. Of course Apollinaire's poetry frequently makes reference to such themes; his 'Orphée' poem as part of the *Bestiaire Ou Cortège D'Orphée* published March 1911 specifically references Hermes Trismegistus, the Egyptian priest and philosopher, the supposed author of 40 books on theology medicine and geography, who taught his people how to understand hieroglyphics. (Lemprière, op.cit p.407)

[59] A more contemporary allusion, and given Chagall's image, one of black humour, could be connected to the report of a tailor, Reichelt, who leapt to his death from the Eiffel Tower in 1912. Hicken (1987) note 74 Chapter Five, op.cit makes this suggestion and also that the reference could also be to Icarus. In 1912 Picasso produced three paintings incorporating words from the contemporary slogan 'Notre avenir est dans l'air'. see Hicken, *ibid*, and P. Daix and J. Rosselet, *Picasso the Cubist Years 1907-1916*. (1979) Nos. 463, 464 and 465. The theme of flight and Icarus appears in Apollinaire's poem 'Zone' 1912, Hicken goes on to give other detailed sources for these connections (*ibid*). Of more relevant interest to this thesis is the novel information that flight, more specifically 'Les Aéroplanes' a brief article by Jollivet Castelot, is a topic found in one of the periodicals Apollinaire owned, *Les Nouveaux Horizons*, October 1910. See note one above for more detail on this periodical.

[60] It is tempting to also think of the Janus head as perhaps relating to both Apollinaire and Cendrars, the other poet with whom Chagall had a close relationship. This would reinforce the unifying principle of the androgyne and the Janus head, and was something which was more overtly expressed in Chagall's *Hommage à Apollinaire*.

[61] 'Leonardo's Legend' in T. Fairbrother and C. Ishikawa *Leonardo Lives. The Codex Leicester and Leonardo da Vinci's Legacy of Art and Science*. (Seattle & London: Seattle Art Museum in Ass. with Washington Press, 1997) p.48.

[62] Charles Ravaisson-Mollien initiated the project to present facsimiles and unabridged transcriptions of all Leonardo's manuscripts in the late 1870's. Between 1881 and 1891 he published six volumes devoted to Leonardo manuscripts in the Institut de France, Paris. As was noted in Chapter two, note 61, of this thesis, the connection to the avant-garde is even more compelling with the knowledge that André Rouveyre's father, Edouard, a leading Leonardo scholar and bibliophile began publishing the hitherto unpublished drawings of Leonardo from 1901.

[63] Michelet quoted in Richard A. Turner, *Inventing Leonardo* (New York: Alfred A. Knopf Inc., 1992) p.108.

[64] *ibid.*

[65] T. Reff. 'Duchamp and Leonardo L.H.O.O.Q-alikes' *Art In America*, LXV, No.1, Jan-Feb. 1977, p.89.

[66] David Hopkins' *Marcel Duchamp and Max Ernst. The Bride Shared.* (Oxford: Clarendon Press, 1998) is a development of ideas from his unpublished PhD thesis, 'Hermeticism, Catholicism and Gender As Structure: A Comparative Study Of Themes In The Work of Marcel Duchamp and Max Ernst.' University of Essex, 1989. Hopkins examines Duchamp's allusions to Cartesianism, Rosicrucianism, Catholicism, Scientific method and eroticism. Ernst's psychoanalytical and hermetic references are also examined. Hopkins concentrates on the 'shared' iconography of the bride in the two artists' works.

[67] Jean Clair 'La fortune critique de Marcel Duchamp: Petite Introduction à une herméneutique du Grand Verre' in *Revue de l'Art* no.34, 1976; Jean Clair *L'Oeuvre de Marcel Duchamp* (Paris, 1976) vol.2. ; Rory T. Doepel 'An Iconographical Analysis of Duchamp's Bride Image in the *Large Glass*' in Moshe Sharon (ed) *Pillars of Smoke and Fire: The Holy land In History and Thought* (Johannesburg: Southern Book Publishers, 1996); A. Schwarz 'The Alchemist Stripped Bare in the Bachelor, Even' in Anne d'Harnocourt and Kynaston Mc.Shine (eds) *Marcel Duchamp* (Philadelphia & New York: Philadelphia Museum of Art & Museum Of Modern Art, 1973). For comprehensive overview see Appendix B: 'A note on the construction of Duchamp as Alchemist' in Linda Dalrymple Henderson *Duchamp In Context Science and Technology in The Large Glass and Related Works.* (Princeton, New Jersey: Princeton University Press, 1998) p.231.

[68] Henderson, *ibid.*

[69] Henderson, *ibid.*, p.68. Duchamp and connections to Leonardo are explored in Henderson's text and she notes the numerous other authors to have explored these connections; Reff (1977) *op.cit.*, Claire (1976) *op.cit.* for example. See Henderson, *ibid.*, p.266, note 14 for further detail.

[70] Henderson, *ibid.*

[71] 'in the last few years, art became severe, and painters, engrossed in new technical experiments that involved mathematics, chemistry and cinematography no longer cared about charming their admirers.'
G. Apollinaire 'Art News' *Le Petit Bleu* 5th April, 1912. in BR.p.229.

[72] Duchamp quoted in 1957, as cited by Katia Samaltanos, *Apollinaire. Catalyst for Primitivism, Picabia and Duchamp.* (Ann Arbor, Michigan: UMI Research Press, 1984) pp.80 & p.207, note 127.

[73] *Ibid.*, p.81.

[74] Péladan, (trans. and comment) *Léonard de Vinci: Textes choisis --*

Pensées, théories, préceptes, fables et facéties. (Paris: Société du Mercure de France, 1908) and Péledan, (trans. and comment) *Léonard de Vinci: Traité de la peinture*. (Paris: C. Delagrave, 1910). As cited Henderson, *op.cit.* p.266, note 12.

[75] Jeffrey Weiss *The Popular Culture of Modern Art. Picasso, Duchamp and Avant-Gardism*. (New Haven & London: Yale University Press, 1994) particularly Chapter 3, 'Marcel Duchamp Qui est Inquiétant: Avant-gardism and the culture and mystification of *blague*'. Weiss also discusses the impact of occultist symbolism such as that of the cabbala and Rosicrucianism on the avant-garde.

[76] Hopkins notes this connection, *op.cit.* p.124, however in describing Apollinaire's collection of texts on Freemasonry and particularly those by Papus, he cites a text by Papus, 'Congrès spiritualiste, maçonnique, spiritualiste de juin 1908' which, to my knowledge does not appear in the Catalogue of Apollinaire's library (see BD I) as Hopkins suggests it does. Dr Gérard Encausse (Papus) appears in no less than five entries in the catalogue to the poet's library. The importance of Papus to the avant-garde in this period has been discussed by Hicken (2002) *op.cit.* p.12-14, and will be addressed more fully here in chapter five of this thesis. His obvious medical association is one that most scholars overlook, yet I will argue in chapter five that the combination of contemporary medical innovations and these more esoteric and ancient texts of an alchemical nature are precisely the sources that the avant-garde were drawing on in their particular understanding and articulation of such hermetic themes. Hopkins also suggests Apollinaire owned a work by Péledan, (Hopkins, *op.cit.* p.124 note 66) which although this is cited in the Catalogue to Apollinaire's library, is in fact one of three texts by Péledan that Apollinaire owned.

[77] G. Apollinaire 'Petites recettes de magie moderne' *Les Soirées de Paris*, No.7, August 1912, and in *Le Poète Assassiné* 1916 trans. Ron Padgett, (Manchester: Carcanet Press Limited, 1985) p.123.

[78] Apollinaire, *Le Poète Assassiné* *ibid.* and quoted p.82, Samaltanos, *op.cit.*

[79] Hopkins, *op.cit.* p.81.

[80] *Ibid.* and drawing's title taken from A. Shwarz, *The Complete Works of Marcel Duchamp* (1969).

[81] See Chapter Three note 212 of this thesis.

[82] Weiss, *op.cit.* p.139 and note 139

[83] Duchamp's own comment from *The Green Box* on this work, as cited Weiss, *op.cit.* p.141 and note 145.

[84] Weiss, *ibid.* and note 144, p.300.

[85] Weiss op.cit, p.141, note 143, he notes for example; Achille Guillard 'La Dépopulation' in *La Petit Journal*, January 15, 1912; Anon. 'Une Statistique intéressante- La France se dépeuple' *Excelsior*, Nov.2, 1912; J. L. Breton 'Le Problème de la Dépopulation' *Les Documents de Progrès*, Jan.1913 and Anon. 'Au Senat-Contre la Dépopulation' *Le Journal March* 6, 1914, listed amongst other sources.

[86] Hopkins, op.cit, p.85, note 160, citing Mark Antliff, *Inventing Bergson: Cultural Politics and the Parisian Avant-Garde* (Princeton, New Jersey: Princeton University Press, 1993) p.71.

[87] G. Apollinaire, *Les Mamelles de Tirésias*, in *Oeuvres En Prose Complète* (Paris: Gallimard, 1993) p.867. For discussion concerning the legend of Tiresias, the prophet who experienced both sexes and a Greek interpretation of androgynous shamanism, see Delcourt, op.cit., pp.41-42.

[88] Whitney Chadwick 'Eros or Thanatos-the Surrealist cult of love re-examined' *Art Forum*, 14 Nov 1975, p.50. Also quoted in Hopkins, op.cit. p.83.

[89] Anon. La Repopulation au point de vue medical' *La Chronique Médicale*, No.6, 1st Juin 1917, p.173. This edition also contained articles on Dr Doyen, (pp.17,18, and 274); Electro-radiologie (p.109); Medicine and Art (pp.76 and 389); Eau d'Apollinaris (p.308) as well as numerous articles by Dr Cabanès.

[90] Dr G. J. Witkowski, *Tetoniana. Curiosités Médicales, Littéraires et Artistiques sur Les Seins et L'Allaitement*. (Paris: Maloine, 1898).

[91] Writing in *La Plume*, 15 May, 1905, Apollinaire's article 'Young Artists: Picasso the Painter' describes the transition of Picasso's aesthetics in the late blue period and talks of the harlequins resembling the young adolescent girls, they are neither male nor female. He goes on to state that in Picasso's paintings 'Virility is beardless' and that the sexes are indistinct. Reprinted in translation in BR pp.14-16.

[92] 'Hybrid beasts have the consciousness of the demi-gods of Egypt [...]', BR, p.16.

[93] See Josep Palau I Fabre *Picasso: Life and Work of the early years 1881-1907* (Phaidon, 1981) Plate Nos; 1040,1058 & 1065.

[94] Ibid, plate no.1384. This body-type is also similar to that used by Chagall for his painting *Orphée*. See discussion above.

[95] Oscar Wilde, 'Portrait of Mr. W. H.', in Herbert Read, *Sexual Heretics. Male Homosexuality in English Literature from 1850-1900*. (1970) p.392, also quoted in George L. Mosse, 'Masculinity and the Decadence' in Roy Porter

and Mikuláš Teich (eds) *Sexual Knowledge, Sexual Science: The history of attitudes to sexuality*. (Cambridge: Cambridge University Press, 1994) p259.

[96] Homosexuality was described by Richard von Krafft-Ebing and other influential psychiatrists in such terms. For discussion of Krafft-Ebing's famous medical classification of sexual disorders *Psychopathia sexualis*, (1886) and its impact on subsequent psychological theories such as those of Freud see Renate Hauser, 'Krafft-Ebing's Understanding of Sexual Behaviour' in Porter and Teich, *ibid*, p.210-227.

[97] Mosse, *op.cit*, p.262

[98] See note 86.

[99] Mosse, *op.cit*, p.262

[100] Tamar Garb, *Bodies of Modernity: Figure and Flesh in Fin-de-Siècle France*. (Thames and Hudson, 1998) p.70.

[101] Mosse, *op.cit*, pp.262-263. Mosse also argues that this was something that was strengthened by the First World War. The brave, heroic and masculine soldier on one side and the weaklings, shirkers or licentious barbarians on the other were common propagandist images. Mosse cites a French postcard from this period representing German soldiers sodomizing each other (*op.cit*.p.263) The war ultimately entrenched the representational polarities of masculinity and carried such constructs well into the twentieth century. Chapter Three of this thesis briefly addressed the topic of sport and regeneration of France in relation to Apollinaire's articles in *La Culture Physique*.

[102] Apollinaire's description appears in his review of 'The Salon d'Automne' *Les Soirées de Paris*, 15 November 1913, reprinted and translated BR, p.33.

[103] Hicken (2002) *op.cit*, p.82.

[104] *Ibid*. Hicken also cites André Billy recollecting the poet's knowing laughter before de Chirico's paintings signalling the shared private meaning of the works. A. Billy *Apollinaire Vivant* (Paris, 1923) p.42.

[105] Soby, for example, makes this allusion stating that de Chirico's painting represents 'the father's moustachioed authority over the family'. James Thrall Soby, *Giorgio de Chirico* (New York: The Museum of Modern Art, 1966) p.14.

[106] This was noted by Hicken (1987) *op.cit*, p.294.

[107] Soby, *op.cit*, p.14.

[108] *ibid*, p.13.

[109] Hicken (1987) op.cit. p.295

[110] Hicken (1987) op.cit p. 295, note 55 cites G. Dalla Chiesa in *Giorgio de Chirico* Exhibition catalogue, (Ferrara, 1985) p.19 who states that this work by Thoma was 'probabile omaggio a Nietzsche', and that Thoma had been an intimate of Dr Langbehn in this period.

[111] The de Chirico family moved to Munich in 1906 following the death of de Chirico's father. At Munich de Chirico enrolled in the Academy of Fine Arts and studied there for two years. During this time he discovered and avidly read Nietzsche's prose. See Soby, op.cit.pp.27-28. Giorgio de Chirico also wrote about and acknowledged his interest in Nietzsche during his first period in Paris in 1911-1915. The translation of these manuscripts appear in part in Soby, op.cit, Appendix A and B, pp.244-253.

[112] See chapter 3 for further discussion and Mariana Torgovnick, *Gone Primitive: Savage Intellectuals, Modern Lives* (Chicago: University of Chicago Press, 1990) ; Linda Nochlin and Tamar Garb (eds), *The Jew In The Text Modernity and The Construction of Identity* (Thames and Hudson, 1995) ; Sander Gilman 'Sigmund Freud and The Sexologists: A Second Reading,' in Porter and Teich op.cit. and Sander Gilman, *Health and Illness: Images of Difference*. (Reaktion Books, 1995).

[113] Gilman, in Nochlin and Garb, ibid, p.100.

[114] Gilman, *Health and Illness*, op.cit, p.60.

[115] Gilman, in Nochlin and Garb, op.cit, p.103-104. Nietzsche's anti-Semitic ideology would have been known to de Chirico. Lombroso also helped define the Jew as degenerate and the aftermath of the Dreyfus affair in France brought to the fore the deeply felt divisive sentiments concerning the Jew in European society. See Sander Gilman, *Franz Kafka, the Jewish Patient*. (Routledge, 1995) pp.90 &170. Pseudo-physiological studies also contributed to the idea of the Jewish male body as weak or deformed, see study by 'Docteur Celticus', Paris (1903) as discussed Gilman, ibid, p.51. Satirical cartoons drew upon such widely held anti-Semitic views: *L'Assiette au Beurre* 30th July (1904) featured an illustration showing the Jewish male as weak in body and a 'shirker', contrasted to the masculine military body. See Gilman, ibid, p.57. For further discussion of Nietzsche and Judaism see Gillian Rose, *Judaism and Modernity. Philosophical Essays* (Oxford: Blackwells, 1993) pp.89-110.

[116] Claude Quélet, *History of Syphilis* trans. Judith Braddock and Brian Pike, (Cambridge and Oxford: Polity Press, 1990) p. 45.

[117] ibid.

[118] Gilman, in Nochlin and Garb, op.cit, p.104

[119] Ibid and p.105. Dr Babinski is discussed in chapter five of this thesis.

[120] Gilman, *Health and Illness*, op.cit., p.63. Here the image is given as being from Paul Niemeyer, *The lungs in health and disease* (London, 1908). However, in Gilman's other text, *Franz Kafka*, op.cit. p.210-11, the image is again reproduced but with the source as a German translation of the English title (above)by the same author, and the date 1913. It is clearly an image used throughout the period in various translations of this medical work, but given the attempt to establish a connection with de Chirico's painting it is telling that the image appeared in a German translation.

[121] Ibid, pp.65-66

[122] Gilman, in Porter and Teich op.cit., p.335. The connection of *feminisme* and tuberculosis is articulated in Ferdinand-Valère Faneau de la Cour, *Du féminisme et de l'infantilisme chez les tuberculeux*. (Paris: A. Parent, 1871).

[123] Ibid.p.339 and note 108. Christian von Ehrenfels' review 'Geschlecht und Charakter', *Politisch-anthropologische Revue*, 3, 1905, pp.481-483 . Apollinaire owned a copy of Weininger's text and it is tempting to speculate that the poet would have been drawn to Weininger's conception of the dual nature of human 'sex and character.'

[124] Ibid, p.342, and note 126, Karl Reiskel, 'Idioticon viennense eroticum', *Anthropophyteia*, 2, 1905, pp.1-13.

[125] Ibid, p.342.

[126] Ibid.

[127] Hicken (1987) op.cit, pp.295- 297, has provided an expanded and more detailed iconographical analysis of de Chirico's *The Child's Brain* which makes a claim for the book in this painting being an allusion to the artist's admiration of Van Gogh, and Van Gogh's portraits of Dr Gachet which contain, in one, the two 'yellow novels' by the de Goncourt brothers, *Manette Solomon* and *Germinie Lacertaux*.

Chapter Five. Representing The Unseen. X-rays, the unconscious, medico-scientific discovery and the metaphors of modernity.

5.1 Avant-Garde vs Mainstream Representation. Chicotot, Duchamp, Kupka and Chagall.

The interest in technical and medical innovations such as radium, electricity and X-rays by certain avant-garde artists is one that has been established for some time now.^[1] However, most authors have relied mainly on technical, scientific-innovations and less on the possible medical connections for the sources of those interests. The artist's awareness of these innovative techniques, procedures and scientific discoveries was fuelled by a variety of sources, from popular culture, mass media reports, to special interest by intermediaries such as Apollinaire and specific medical sources. It was also something that became a topic for more mainstream conservative art practices in the late nineteenth and early twentieth century.

Dr Georges Chicotot, briefly discussed in Chapter 4 as a *bicéphale* doctor pursuing both a medical and painting career, was just one of a number of Doctor-artists who captured the innovative treatments, techniques and procedures of their medical profession in their paintings. Chicotot, who exhibited regularly and was a decorated artist had graduated first from the Ecole des Beaux-Arts and taught anatomy at the School of Practical Anatomy, where both artists and doctors attended^[2]. He gained a medical degree from the Ecole du Médecine in 1899 and began a career that embraced early experiments with radiology and X-ray treatment^[3].

Chicotot's painting *Premiers essais du traitement du cancer par rayons X*. (1907) [Fig.4] is also a self-portrait. Dr Chicotot was head of radiotherapy at

the Hôpital Broca in 1908 and the painting (first exhibited in 1908) shows the innovative treatment of breast cancer by X ray therapy, with pictorial detail of the Crookes tube and equipment used to generate the rays. The female and her naked breast are the central focus of the work and it appears to be a modern reworking of Gervex's painting *Avant l'Opération* (1887) [Fig.5] which also showed the female lying with naked torso and breast before Dr Péan and his colleagues. In Gervex's painting the innovative procedure was the demonstration of 'la pince hémostatique'. Chicotot's work also differs from Gervex's in that it is ultimately a self-portrait, not the grand, group portrait, popular in the nineteenth century. The female's function in the painting is similar to that of the equipment, she is merely the vehicle through which to signify the Doctor's technically advanced techniques and expertise. Yet the erotic element is still present and as a trained artist as well as practicing doctor, Chicotot would have been well aware of the sexual interest in the image as much as the interest in the new medical treatment. The image appears to be promoting the modernity of the subject-matter and it is a departure from his earlier, more traditional group-portrait representing the treatment of croup, *Le Tubage* (1904). [Fig.101]

The *Album Gonnon*, a journal of medical artists and their work, notes that this painting was shown at the annual Salon of 1905, ^[4] and as mentioned in chapter 4, although Apollinaire had never specifically reviewed Chicotot's work, he would have been aware of the medical artists and their work which, in the case of Dr Paul Richer, was also often exhibited at the Salon of the Société des Artistes Française. The medical periodicals that Apollinaire collected also had frequent articles on doctor-artists like Chicotot.

Chicotot's medical paintings were normally accompanied by a detailed description and explanation of the procedure being represented, but the painting *Premiers essais du traitement du cancer par rayons X*, had no such explanation. It appears that the innovative procedure was one that Chicotot wanted to keep to himself, whilst showing the audience that he was at the vanguard of such medical innovations. It was also at this time that a public scandal involving Dr Doyen and his false anti-cancer vaccine came to public attention and the subsequent court case was the topic of numerous articles in the press of the day.^[5]

The idea of X-rays had gripped the public imagination since Wilhelm Conrad Röntgen had produced the first X-ray of his wife's hand in 1895 and circulated reports of his new discovery throughout Europe and America.^[6] Caricatures, advertisements and newspaper reports all reflected the popular interest in the 'new light'.^[7] Contemporary scandals, like the Doyen case, further added to the public fascination with the new technology.

Advertisements, such as one for a face cream that 'contained' radium [Fig. 102] that appeared in *La Vie Parisienne* 13 Juin 1914, were a common feature in newspapers and journals of the day. Another advertisement poster from circa 1900 for *Le Solitaire* [Fig. 103] by A. Segaud, features a prophylactic cure for blood and nerve diseases. The tube emitting electrical sparks/rays banishes the 'microbe' or harmful germ, a cartoon-like representation, which is found in the upper left corner of the poster. Of course the identification of 'microbes' was still a relatively recent medical development engendered by the refinement and innovation of the microscope. In 1910 Apollinaire quipped that Manet's *Bar At The Folies-Bergère* had

‘colours and composition [that] appear to be pasteurized by Seurat, the microbiologist of painting’.^[8] *Le Rire*, 17 Dec. 1910 included a cartoon of ‘Le bon géant microscope’ seeking out bacillus and microbes for destruction by Doctors, and such humorous representations of medical innovations were a feature of the satirical periodicals of the day. More serious images, like Chicotot’s representation of X-ray treatment and a contemporary lithograph by Ivo Saliger, *Radiation Treatment* [Fig. 104] could be found in those journals and periodicals that dealt with the arts and sciences and of which Apollinaire had numerous copies. *La France Médicale* 1904, vol. 12, a copy of which Apollinaire had in his collection, contained an article by Dr R. Sabourd, who worked at the Institute Pasteur, ‘Les teignes cryptogamiques et les rayons X’. This article contained detailed discussion of the use of X-rays and similar articles appear in the other medical journals and periodicals owned by Apollinaire.^[9]

The interest in the new scientific technologies was also embraced by those who had other, more esoteric, occult and alchemical interests such as Péladan. In 1904 he presented an article in *Mercure de France* entitled ‘Le Radium et L’Hyperphysique’. The discovery of radium and radioactivity as well as X-rays offered support to those occultist and spiritualist interests that were already popular in Parisian circles from the late nineteenth century. Péladan’s article embraced both alchemical reference and supernatural phenomena whilst also establishing his knowledge of the work of the Curies, Rutherford, Sir William Ramsay, Crookes, and Herz (*sic*).^[10] The transmutation of one substance into another, in short the alchemical quest, was something that the work of Rutherford and chemist Frederick Soddy represented to those with interests in

both modern science and alchemical, occultist practices.^[11] Such articles were of interest to Apollinaire and his circle. The poet also owned copies of Jolivet Castelot's *Les Nouveaux Horizons* which contained articles on alchemy, magic and innovations in modern science and medicine.^[12] Contributors included Gustave Le Bon,^[13] and the periodical, its interests and the work of Jollivet Castelot were known to Apollinaire and those in the Cubist circle including Duchamp.^[14] The interest in alchemy for these artists and poets has been addressed in Chapter 4 of this thesis. However what was not addressed was the idea that those interests were also fuelled by contemporary medico-scientific discoveries and innovations such as X-rays that appeared to be material proof of a fourth dimension, of Platonic universal forms and in the case of radium, of the alchemical transmutation of metals. Theosophy too had gained new currency in the climate of scientific discovery and was something that artists as diverse as Kupka, Kandinsky and Piet Mondrian were interested and involved in.^[15]

The complex intellectual milieu of pre-war Paris was one that embraced occultism and mystification.^[16] Those within the Cubist circle, Alexandre Mercereau, Kupka, and Apollinaire for example, shared an interest in the mystical and the occult that ensured a wider dissemination of such ideas amongst those artists working in Paris at that time. Mercereau was secretary of the Société Internationale de Recherches Psychiques and contributed to the Symbolist journal *La Vie Mystérieuse*.^[17] Apollinaire's connection with occultism was complex. Through friends and contacts such as Jarry, Max Jacob and those at the Puteaux gatherings the interest in mystical-occult tradition found contemporary, modern articulation. Henderson has noted the

similarity between Apollinaire's articulation of 'man as microcosm' and the 'immaterial ether' in a letter of 1915 to that of Mme. Blavatsky's description of the *anima mundi*.^[18] The scientific discoveries of the late 1890s became a symbiotic part of such discourses and as such can be seen as part of the internal logic of the avant-garde at this time.

The idea of joining old axioms to new ones in this way, was described by Mercereau in early 1914, articulating a position that had been adopted for some time by those within the Cubist circle including Apollinaire.^[19] The fusion of old ideas with new was evident in Duchamp's *Portrait of Dr Dumouchel* (1910).^[Fig105] As has been demonstrated, this work combines both modern, contemporary references of a medico-scientific kind with that of more esoteric occultist reference^[20] Duchamp's friendship with Dr Raymond Dumouchel and Dr Ferdinand Tribout may well have been the catalyst for Duchamp's attempt at representing the 'unseen' in both a scientific and spiritualist sense. The 'aura' that surrounds Dr Dumouchel in the portrait by Duchamp is even more emphatically represented around the hand. Dr Tribout had studied radiology as a medical student and went on to become a pioneer in radiology treatment. Duchamp's brother Raymond Duchamp-Villon had also studied at the Salpêtrière Hospital, Paris, where Albert Londe was pioneering experimental radiology and photographic processes. Together these various medico-scientific sources could perhaps have provided Duchamp with a model of 'certain extra-retinal phenomena caused by radiation, perhaps including the 'electric' halo surrounding the hand of [...] Dr Dumouchel.'^[21] This more material, scientific allusion is combined with that of non-rational, occult reference. The 'aura' and distortions may well relate to popular

clairvoyant descriptions of vibrating body auras.^[22] The splayed hand could also relate to the occult practice of chiromancy, the divination of character and destiny by ‘reading’ the lines and aspects of the hand.[Fig.106, ‘Position of the planets on the Right hand’, after Agrippa,1533] It was something with which Max Jacob had long been associated and a popular part of the Parisian renaissance in occultism.

In 1914 Apollinaire specifically mentioned Duchamp in connection with Charles Henry, a director of the *Laboratory of Physiology of Sensations* at the Sorbonne who was associated with both psychophysics and X-rays.^[23]

Duchamp’s other works and their association with X-rays and scientific technology has been addressed by, amongst others, Henderson.^[24] She has also written about the interaction of František Kupka with the Cubist artists and his interest in both spiritualist concerns as well as scientific innovations.

Duchamp was close to Kupka, a fellow illustrator and friend of both Duchamp’s brothers from their time living in Puteaux, 1905-6.^[25] Kupka was a practising spiritualist medium and theosophist and his interest in X-ray imagery began before 1910.^[26] Kupka also participated in the discussions at Puteaux where the fusion of the esoteric and occult interest with scientific, mathematical ideas generated, in part Apollinaire’s vision of ‘Orphism’. Kupka and Apollinaire shared an interest in these dual aspects of contemporary cultural fascination. An early figurative illustration by Kupka [Fig107] combines obvious symbolism of religion and science and marks what Virginia Spate saw as Kupka’s gradual reconciliation of ancient beliefs with modern science.^[27] Kupka’s interest in biology, geology and science generally, can be seen in images such as *Les Disques de Newton: Etude pour la Fugue*

en deux couleurs (1911-12), *Irregular Forms, Creation* (1911) and later works such as *Tale of Pistils and Stamens* (1919-20). [Fig.108] Yet these images also corresponded with contemporary understanding of theosophical beliefs as articulated by Blavatsky and others.^[28] The connection of Kupka with X-rays derives, in part, from his time at the Sorbonne (1905) where he attended lectures on physiology and even worked in the biology laboratory there.^[29]

Henderson has noted the appeal of X-rays to Kupka and other artists associated with the Cubist circle. Albert Londe's photographs that contrast the standard photographic image with that of an X-ray provided the visible representation of 'the new light' that penetrated beneath the material surface of objects to reveal the essence of form.^[30] As early as 1910-11 Kupka had articulated the distinction between the 'perception of matter under its 'exterior form' and the 'perception of the form itself'.^[31] Kupka's painting *Planes of Colour, Large Nude* (1909-10) [Fig.109] indicates, in the representation of the right leg something of this dichotomy between 'interior' and 'exterior' form. The limb appears to be represented in a way similar to that of an X-ray photograph where the interior solid bone is defined against the shadowy exterior flesh. In other works such as *Family Portrait, Two Girls with a dog* (1910) and *Oval Mirror* (1910/1911) the quest for representing the 'unseen' appears to continue for Kupka. These dematerialised figures do appear to owe something to the discovery of X-ray images, but also, as Henderson notes, to an idea of 'psychic film' on which the artist captures the immaterial invisible and essential reality of the model.^[32]

The 'stripping bare' of the human body that X-rays represented was something that had obvious humorous overtones. [Fig.110] This was

something with which Duchamp probably identified in his work *The Bride Stripped Bare by Her Bachelors, Even*. Indeed the relationship of Duchamp with scientific innovations in photography and X-rays and its articulation in this and related works has been well documented^[33] Kupka, however, had abandoned X-rays by late 1912 in favour of other ranges of the electromagnetic spectrum as model for artistic expression.^[34]

The impact of such interests on the wider circle of avant-garde painters working in Paris at this time has included discussions on Picabia and even Picasso^[35] but usually overlook what may at first be seen as an odd addition to the discussion. Chagall's work of 1912-13, *The Pregnant Woman* [Fig.77] is variously interpreted as a reference to the pregnant girlfriend of his friend, the poet, Blaise Cendrars.^[36] *Féla*, Cendrars's Polish girlfriend, was also the title under which the painting was first exhibited in 1914.^[37] It has also been compared to the Russian icons of Madonna and Child and more specifically to an adaptation of the *Maria Blacherniotissa*, a Byzantine Madonna-type which presents the image of the infant Christ on a medallion at her breast.^[38] It is also a reworking of the androgyne image with the head as both male profile and female frontal composition (see chapter four for discussion of Chagall's androgyne imagery). However, it could be argued that Chagall was also aware of X-rays and those scientific innovations that dominated the discussions of his contemporaries. Whilst it is possible to argue the image of the infant in a stylized womb-like oval disk could also be relating to anatomical and alchemical discourses (see chapter four) it is also possible that through similar contacts he had awareness of X-rays and their ability to represent the unseen. The revealing of the 'interior' in this painting could therefore allude not just to

those more material practices of dissection and anatomy, or to esoteric alchemical or occultist themes, but could also be engaging with contemporary fascination of the representational potential of X-rays. In *The Cattle Dealer* (1912) [Fig. 111], the pregnant Ox reveals the unborn offspring in a similar way. It is tempting to suggest some affinity between the two, at least on this level, and further, as was suggested in chapter four, Chagall's paintings from this period appear to owe much to his close contact with Apollinaire and those artists with whom the poet was associated.

The prismatic representation of light in *Paris Through The Window* also offers the possibility of seeing it as not just a representation of a literal kind (the lights from the Eiffel Tower) but also as something that was tentatively exploring the possibilities of representing that which is 'unseen' the penetrating rays of the 'new light'. These works could also be said to engage in representing the various planes of light and form that X-rays, in conjunction with contemporary discussion concerning theosophy and Neo-Platonic ideas, represented.

The interdiscursive exchange of ideas within the avant-garde circle of artists, poets and writers centred, at this time, on those elements that were beyond the known material world. It is not surprising therefore, that there is a possibility of seeing such allusions and references in the work of artists associated with that group. The possibility is perhaps less remote than it may at first seem in the case of Chagall, when the impact that figures such as Apollinaire and his interests had on those artists is taken into consideration.

5.2 Hypnotism, Hysteria and The Unconscious. Charcot, Apollinaire, Breton, and de Chirico

In this final section of chapter five Apollinaire's role in the dissemination and continuation of certain themes and interests of a medico-scientific nature is equally relevant. Whilst the poet was not the only source for the interest in the unconscious, madness and hysteria and related fields such as hypnotism by artists as diverse as Picasso, de Chirico, Ernst and Duchamp, he was a link between the pre- and post-war avant-garde and continued to exert influence over the development and discussion of avant-garde art long after his death in 1918. Apollinaire's role as disseminator was particularly influential in the area of his interest in art and madness, in art by the insane and in psychology.

It was the nineteenth century that witnessed the beginning of the attempt to treat insanity as a medical condition rather than just as a social problem. The shift from merely confining the 'insane' to their study and treatment was one that those working in the French medico-legal systems of the early nineteenth-century were particularly instrumental. It was also during this century that the representation of the 'unseen', of madness and of mental pathology, became seen as integral to understanding the patient's illness.

J. E. D. Esquirol's *Des Maladies Mentales* (1838) and the commission of artists like Géricault (1791-1824)^[39] to record certain mental manias and pathologies are just two examples of the importance that visual representation had to the study and classification of the insane in nineteenth-century France. Such ideas had an impact on the later, and probably most renowned of French psychiatrists, Jean Martin Charcot (1825-1893).

Charcot's pioneering work at the Salpêtrière Hospital in Paris in collaboration with figures such as Dr Paul Richer, Albert Londe and Dr Henry Meige, left a lasting legacy of the visual representation of mental pathology and classification of certain disorders such as Hysteria that still have currency today.

Hysteria, as categorised by Charcot at the Salpêtrière, was evidenced through the body, its contortions and physical movements of *la grande attaque hystérique*. It was fundamentally a visual phenomenon and the majority of Charcot's hysteric patients were female. The sexualized masculine and medical gaze in effect constituted Charcot's 'demonstrations' of hysteria as spectacles for male voyeuristic pleasure and 'inscribed and legitimised male bourgeois power'.^[40] Brouillet's painting of one of Charcot's demonstration lectures at the Salpêtrière, *Une leçon clinique à la Salpêtrière* (1887) [Fig.2] shows the female patient, Blanche Wittman in an hypnotically-induced state of delirium, the fourth and final stage of Charcot's *grande hystérie*. What is often overlooked in descriptions of this work, however, is the detail of one of Dr Paul Richer's drawings of hysteria to be found in the top left corner of Brouillet's painting. The female, with her arched back in contorted pose, was just one of numerous images of hysteria that surrounded Charcot and his female patients at the Salpêtrière.^[41] The gendered construction of hysteria and madness more generally, as will be discussed below, was something that was embraced by those working within the Surrealist group in the early 1920s.

The importance of the visual recording of the insane for Charcot was such that under his directorship the *Nouvelle Iconographie Photographique de la Salpêtrière* was founded in 1888. This publication also contained images of

mental pathology that were found in the visual arts. In 1887 Charcot and Richer published a volume of such representations, *Les Démoniques dans l'art*.^[42] This volume represented both Charcot's interest in the visual arts and his interest in mental pathologies. The 'retrospective medicine' employed by Charcot in the collection of images of demonic possession was an attempt to prove the historical reality of the disease of hysteria. Indeed the correlation for him was between the visual manifestation of hysteria in Renaissance images such as Adrea del Sarto's *St. Philip delivering a demoniac* in the cloister of S. M. Annunziata in Florence [Fig. 112a] a drawing of which, by Charcot himself, appeared in *Les Démoniques dans l'art* [Fig. 112b] and the actual manifestation of the mental pathology in his patients, as recorded in Brouillet's painting and in the photographs and drawings found in the *Nouvelle Iconographie Photographique de la Salpêtrière*.^[43]

These powerful representations of the 'unseen', of the insanity and hysteria of the female corresponded to prevalent patriarchal and misogynist views concerning female mental weakness. The asylums were places where women could be committed for a variety of what now appear to be minor antisocial behaviours; women who led debauched lives, had loose morals or were prone to vice, vagrants, single mothers, syphilitics and even those who exhibited degenerative behaviour of going dancing and drinking too much.^[44] In short, the asylums were populated by 'those whose freedom is harmful to society',^[45] in this case a patriarchal society where the gendered assumptions concerning male and female behaviour were deeply ingrained.

The image of the female hysteric became symbolic of transgression. As such they had immediate appeal to the Surrealist group and the appearance of

'Les Attitudes Passionnelles en 1878' in the Surrealist magazine *La Révolution Surréaliste* No.11, 15 March, 1928 [Fig.28] marking the fiftieth anniversary of hysteria, was perhaps a culmination of both pre-and post-war avant-garde fascination with the unconscious and mental pathology, and with the sexualized representation of women as closer to madness, women as instinctual and closer to nature. Indeed André Breton's conception of the unconscious was to see it as the irrational 'female' side of the mind, and the ordered, scientific and rational part being exclusively male. However, far from seeing female hysteria in purely negative terms as merely a pathology, the Surrealists embraced this transgression and celebrated the irrational, the uncanny and considered hysteria a 'supreme form of expression'.^[46]

Of course it was Freud, a former pupil of Charcot who was instrumental in promoting the idea of hysteria as a specifically female pathology in his writings from the 1920s and 1930s. The celebration of such eminent doctors working in the field of psychiatry was also part of the March 1928 edition of *La Révolution Surréaliste*; Breton and Aragon also cited Dr Babinski and Dr Pierre Janet both of whom regarded hysteria as a 'malady through representation'.^[47]

In fact the visual representation of mental pathology became a crucial part of both medical and visual discourse. Babinski developed Charcot's ideas concerning hysteria and sought to separate out the signs that were the result of organic disorder and those attributed to 'hysteria'. His research into the reflex functions of patients with organic disorders of the nervous system was summed up in a caricature by the artist Georges Villa in *Chanteclair*, October 1911.[fig.113]^[48] 'Le Signe de Babinski' was also the term coined for this

phenomenon where the doctor ‘excite la plante du pied d’un malade pour provoquer le phénomène dont il est l’inventeur, connu sous le nom de *signe de Babinski*.’^[49] Freud developed his ideas of the female hysteric from Babinski and Charcot and refined the sexual component.

In fact the Surrealist embrace and celebration of the female hysteric was perhaps more of an extension of nineteenth-century gender constructs and less transgressive than it would at first appear. Medical discourse presented hysteria as specifically gendered, the hysteric, even the male hysteric, was seen as ‘feminine’, passive, pathological. As with many diseases and neuroses categorised in the late nineteenth century, the degenerate, pathological or sick male body became feminized. These disturbances in gender coding did not displace the dominant construct of the feminine. The recourse to hysteria perhaps ‘only extended the purview of the male artist, who could thereby assume “female modalities” without any sacrifice of “male prerogatives”.’^[50] The male artists then could retain the privilege of identity and entertain the possibility of its subversion. Duchamp’s humorous forays into transvestism in the photographs of himself as alter-ego Rrose Sélavy in the early 1920s come to mind with such psychoanalytical models.

In fact Duchamp’s interest in psychology, like that of Apollinaire’s, was something that was established before the First World War. Apollinaire’s interest in such areas has been established for some time.^[51] The poet was a friend of Victor Goloubeff, secretary to Charles Henry, psychologist and director of the ‘Laboratory of the Physiology of Sensations’ at the Sorbonne. Duchamp has been connected to Charles Henry by Apollinaire and among Duchamp’s own notes there is specific reference to his interest in

psychology.^[52] Dr Pierre Janet's manual on psychology has also been suggested as something that Duchamp would have come across during his work at the Sainte Geneviève library.^[53] Janet's work has also been seen as particularly important to Max Ernst's work. For example Janet's conception of hysteria has been identified as a possible model that Ernst drew upon for his painting *Enter, Leave* (1923). [Fig.114] This work has been compared to Janet's psychological theories of hysteria and to pages from Janet's *Nérvoses et idées fixes*, Paris (1898). [Fig.115]^[54]

Apollinaire's interest in psychology grew in the period 1913-14, and his articles in *Paris Journal* and other periodicals in the run up to the outbreak of war reveal that he was writing regularly on medicine and art as well as consulting medical publications. An article from *Le Mercure de France* 16 Dec.1913, revealed that Apollinaire was engaged in friendships with certain medical men. 'M. Bourget and the insane' discussed the special interest of the writer Paul Bourget in the behaviour and linguistic expression of schizophrenics and his visits to a particular mental hospital in search of literary inspiration.^[55] Some eight months earlier, Dr Jean Vinchon, friend of Apollinaire and psychiatrist, had reviewed Apollinaire's 'list of forbidden books' of *La Bibliothèque Nationale* whilst preparing his important work *L'art et la folie*, published in 1924.^[56]

Vinchon's book discussed André Breton and his experiences at the Neurological Centre of Nantes in 1916 where Breton was a medical intern, and he noted that 'The observation of schizophrenics revealed to him [Breton] the possibilities of the imagination.'^[57] Breton developed his ideas from a variety of psychological sources including Babinski (with whom he was a

medical intern for a brief period)^[58] and Freud. Some years before Breton embarked on a method of psychic automatism (derived in part from Freud's ideas of psychoanalysis) Apollinaire had written on the connection of Freud and psychoanalysis to creativity.^[59]

The interest in medical connections with avant-garde art practice was articulated as early as 1911. In a satirical article and review of the *Salon d'Automne* a Dr Pamphylla noted that the arts of drawing and medicine were a good marriage.^[60] Dr Pamphylla also acknowledged that many Doctors were also engaged in artistic practices citing the *Salon d'Aesculape* and Dr Paul Richer specifically. He also noted that doctors had been the subject of artists work, particularly the 'ironic and truculent' images of Abel Faivre (probably referring to Faivre's illustrations for *L'Assiette au Beurre*.) He concluded that the Salon d'Automne of 1911 included a number of works that were of more particular interest to doctors, from representations of pathological subjects, 'half-idiots' to images of the infirm and hump-backs. However, it was the work of the Cubists that he singled out as an example of a mania and pathology, and stated that these works were sure to retain the attention of all doctors in general, but *alienistes* in particular!

In 1914 Apollinaire attacked this type of mania of doctors seeing disease everywhere.^[61] Later that year two more articles by Apollinaire appeared dealing with art, madness and medicine. In one Apollinaire announced the future publication of a series of engravings of the insane by Pierre Ouvray, who had studied closely the patients incarcerated in an asylum.^[62] Two months later his note inviting the identification of 'an artist of great talent', who produced surgical drawings for Dr Doyen appeared in *Paris Journal*^[63] at the

same time as his other article 'Neurosis and Modern art' attacked an unknown professor due to give a talk of the same title. Apollinaire claimed that healthy and intelligent artists (he cites Derain, Braque, Vlaminck, Picabia, Duchamp and others) should make the professor change his conclusions if not the title of his lecture.^[64]

Katia Samaltanos has also erroneously attributed a later article of 1917 on 'Doctor-Poets' to Apollinaire.^[65] The article appeared in *Le Mercure de France*, 1st May (1917) and it is more than likely that Apollinaire would have been aware of it, but there is no evidence to suggest he was the author, on the contrary, the author, given as Dr E. Callamand does not suggest a pseudonym for Apollinaire. In fact Apollinaire did adopt two medical pseudonyms shortly before his death to sign his articles on art in Paul Guillaume's magazine *Les Arts à Paris*, 'Dr Pressement' and 'Paracelsus'.^[66]

The article on 'Doctor-Poets' cited by Marcel Réja in his publication *L'art chez les fous*, (Paris: *Le Mercure de France*, 1907) would have interested Apollinaire dealing as it did with an aesthetic evaluation of art of the insane, with issues of genius and madness and how both appear schizophrenic to the public.^[67] But it was Dr Jean Vinchon who revealed the drawings of the insane to Apollinaire, and both Vinchon and Réja used works from the collection of Dr Auguste Marie in their publications of art of the insane.^[68]

Dr Marie had studied under Charcot and was director of a mental asylum at Villejuif on the outskirts of Paris between 1900 and 1920.^[69] He collected writings and art produced by his patients and even organised exhibitions of their work. It was likely that Apollinaire and Vinchon may have visited the

asylum and Samaltanos details the impact of such ideas on Duchamp's work.^[70]

Apollinaire's interest in such medico-artistic discourses provided a legacy for Surrealism perhaps most notably through his friendship with André Breton. Breton had cultivated a close relationship with Apollinaire in the two years before the poet's premature death in November 1918.^[71] Apollinaire's role in the perpetuation of certain ideas from the pre-war period was acknowledged after his death by figures as diverse as Paul Guillaume and Aragon, Breton and Soupault in their newly established magazine *Littérature* that appeared in March 1919.^[72] Breton's own reference to medical and psychical journals in 1933 has been suggested as representing an extension of interest in areas explored by Apollinaire.^[73] Apollinaire's legacy to Breton, Ernst and others working within in Surrealism has been established.^[74] Breton's combination of interest in the alchemical and psychoanalysis was also something that was an Apollinairean interest.

Dr René Allendy published his thesis concerning the popularisation of alchemy and psychoanalysis in 1912.^[75] *L'Alchimie et de la Médecine* called for a humanist medicine based on alchemical precepts involving an unusual technique that included psychotherapy, suggestion, magnetism and homeopathy. This represented not an archaic regression for Allendy but a new 'science of life'.^[76] Although there is no evidence that Apollinaire owned this work, it is precisely the type of interesting admixture of the older, esoteric occult interest with new science that would have greatly appealed to him. It was also something that may well have been reviewed in the medico-cultural periodicals that he owned. Allendy's views were published in the early 1920s

in *L'Esprit Nouveau* and Legge speculates that the alchemical and psychoanalytic references in *The First Surrealist Manifesto* of 1924 may well owe something to Allendy's ideas.^[77] It is also possible that those ideas were presented earlier by figures like Apollinaire.

Apollinaire had in his bibliographic collection a copy of Otto Weininger's *Geschlecht und Charakter*, published in 1903 shortly before Weininger's suicide.^[78] This work, which was to continue Weininger's infamy long after his death, developed a complex set of psychological theories concerning human sexual identity and included discussions on hysteria. He owed much of his theory on hysteria to Pierre Janet, Oskar Vogt, Breuer and Freud. Hysteria was seen as the expression of the repressed true feminine self trying to break through the barrier of the false self. This aspect of hysteria could, in these terms, be seen to parallel Breton's idea of hysteria as a supreme (and therefore desired) form of expression. Weininger's other emphases, on the inherent dual nature of humankind (that we are all bisexual beings) also seems to have a connection with the alchemical interests of Breton and other early Surrealists as well as to their interest in the unconscious and in a 'revolution of the mind'.

Of course Weininger's work was also important to Giorgio de Chirico and the painter openly acknowledged the Austrian as 'the deepest psychologist I know about'.^[79] Given de Chirico's close connection with Apollinaire and later with the Surrealist group it seems possible that Breton and other post-war writers and artists were developing their ideas in light of these earlier interests.

It is possible to suggest that these inter-discursive interests, which were part of Apollinaire's own repertoire of ideas in the pre-war period had some discernible impact on those post-war art movements that celebrated the

contribution of Apollinaire and his contemporaries and continued exploring themes and ideas that were present in Parisian cultural circles before the outbreak of war.

Giorgio de Chirico and *The Song of Love* and *Portrait prémonitoire de Guillaume Apollinaire*.

The representation of the unconscious and the ‘unseen’ has often taken on more anatomical and surgical iconography in a symbolic representation of uncovering that which is hidden. Ernst’s works particularly of 1919-1920s appears to engage with both the anatomical and the psychological. The long established metaphors concerning ‘dissection’ and ‘anatomy’ of the mind seem appropriate in the light of images such as *L’Ascenseur Somnambule* (1920). However such marvellous combinations of iconography and esoteric titles evoking both a materialist and non-materialist, psychological realm were present in the pre-war work of Giorgio de Chirico.

The Song of Love (1914) and the almost contemporary *Portrait prémonitoire de Guillaume Apollinaire* (1914) [Figs. 116 & 117] have been associated with Apollinairean themes and interests^[80] and, as addressed in Chapter 4, de Chirico and Apollinaire were close in the period just before the war. The iconography in *The Song of Love* signifies as both a possible self-portrait and also to wider themes of a psycho-sexual nature. The glove motif has been acknowledged as a reference to obsessional sexual desires and unconscious psycho-sexual impulses, not least from the use of such motifs in the work of Max Klinger.^[81] Klinger’s work was known to de Chirico^[82] His series of prints *Paraphrase on the Finding of a Glove* detail a psychological

journey of angst and psycho-sexual frustration. A contemporary allusion has also been ascribed to the glove motif, that of a surgeon's glove. This is established in part, by *a priori* knowledge that de Chirico suffered from acute intestinal disorders.^[83] The glove in de Chirico's work is also iconographically similar to the pink glove of the surgeon, and less like the woman's leather glove seen in Klinger's prints. Apollinaire anticipated the completion of de Chirico's painting when on 4 July, 1914, he published an article under a pseudonym that stated:

M. G. Chirico has recently purchased a pink rubber glove, one of the most striking articles for sale these days. Copied by the artist, it is intended to render his future paintings more frightful than his past works.^[84]

The 'fright' was perhaps meant to be engendered by the surgical connection with the 'pink glove'. There has also been a suggestion that word-play, associated with the glove and the signature of the artist that appears directly beneath the flaccid fingers of the glove in de Chirico's painting, alludes to the surgical connection. Born and educated in Greece, the artist's name would have been pronounced *Chiricos*. A pun on *Chiricos: Cheir* (hand), *oicos* (house) -the glove as house for hand- and *cheirourgios* (surgeon).^[85] The classical reference in the painting to the *Apollo Belvedere* head and the curious juxtaposition of the ball has also been connected to Apollinaire and the poem he dedicated to Francis Picabia.^[86]

In de Chirico's other work from this period, *Portrait prémonitoire de Guillaume Apollinaire* (1914) the Apollinairean reference is explicit. The title and the profile signify Apollinaire and the 'target' on the silhouette's head proved to be a prophesy of Apollinaire's head wound sustained in March 1916.^[87] However, the conception of the work and its title owed much to

Apollinaire's own intervention. The poet provided the epithet *prémonitoire*, following on from his conception of 'the poet threatened with tragic death'.^[88] The Orphic allusions (the blind poet) and the detailed iconography present an hermetically coded portrait of Apollinaire.^[89] Above all de Chirico used material symbolism to reference psychological states and the competing aspects of the poet's personality. Simultaneously he represents the Apollonian and Dionysian aspects of the Orphic poet through devices such as the dark glasses of the classical head signifying the blind poet who is also a prophet.^[90]

Given de Chirico's interest in psychology and writers such as Weininger it is possible to see the dualism encoded in such paintings as corresponding to the dualism that Weininger saw as part of human sex and character. Of course de Chirico's later significance for Surrealism can be understood in the hermetic, allegorical and psychological connotations of his work.

Hypnotism.

Part of the legacy of Charcot's experiments on the hysteric patient was his use of hypnotism. Hypnotism was already established in the public imagination as part of occultist discourse associated with 'mesmerism'. The Austrian doctor Franz Anton Mesmer (1734-1815) used 'magnetic' waves to cure the sick, basing his ideas on those of Paracelsus and Robert Fludd.^[91]

By the late nineteenth century the topic of hypnotism and hallucination in non-psychotic individuals was part of clinical discussion.^[92] The First International Congress of Experimental and Therapeutic Hypnotism was held in 1889.^[93] In effect the debates led to the widespread understanding of the mind having divided consciousness, a double ego: the conscious and unconscious. The Symbolist privileging of 'interior' life over that of the

‘exterior’, in part an attack on Parnassian naturalism and scientific positivism, can be seen to inform those artists working in the post-Symbolist milieu, for example Picasso. Thus his *Self Portrait* of 1901 [Fig.118] is listed in Josep Palau I Fabre’s catalogue as *Picasso in a state of Hallucination* ^[94]; the interior psychological toll of the suicide of his friend Casagemas, and possibly drug-induced hallucination, is represented in the dark sombre painting and in Picasso’s staring eyes. Picasso’s ‘hypnotic’ self-portrait conforms to then current ideas concerning hypnotism and hallucination and can be seen as a forerunner of the Surrealist interest in auto-suggestion and hypnotism derived as it was from a quasi-linear dialectic that encompassed Charcot, Babinski, Janet, Weininger and Freud.

Charcot’s use of hypnotism as just one method of investigation of a patient’s illness helped to reinstate hypnotism as a credible medical technique.^[95] The presentation of his work on hypnotism and hysteria to the Académie des Sciences in 1882 marked the official recognition of hypnotism as a subject worthy of serious scientific investigation.^[96]

Hypnotism and suggestion also inspired numerous novels of the period and Charcot’s weekly public demonstrations at the Salpêtrière Hospital, Paris drew a range of spectators from all walks of Parisian life.^[97]

Breton’s first medical internship at the neuro-psychiatric centre in Saint-Dizier was under a Dr Raoul Leroy, a former assistant to Charcot, and it was Leroy who first introduced Breton to Charcot’s ideas on hysteria (which Breton did not wholly accept).^[98] Breton more readily embraced Freud’s theories on psychoanalysis, and this combined with Janet’s theories on hypnotic experiments provided a psychological model for Breton’s

experiments with ‘automatic writing’. Indeed the Surrealist employment of such psychological strategies can be seen as a direct response to those earlier psychological medical models to which Breton was exposed.

Certainly the focus of Surrealist art on the body, dismembered, anatomized or in bizarre juxtapositions with other objects, titles and so on could all be said to be, in part, due to the early emphasis on the visual representations of the ‘invisible’ unseen unconscious workings of the mind as configured in the work of diverse doctors and *aliénistes* from Charcot through to Freud and Lacan.

Indeed these ideas were a preoccupation for Breton and the Surrealists well into the twentieth century. The reproduction of a photograph of the Papin sisters in the fifth edition of *La Surréalisme au Service de la Révolution*, 1933, relates to the gruesome ritualistic slaughter of their employers in that same year. The inclusion of an image of the sisters before the murder as well as after, further reinforces the idea of the dual consciousness and dual ego, a legacy of nineteenth-century psychological discourse. It was also related to the concept of paranoia, a topic that Lacan was exploring and had published articles about in *Minotaure* during 1933.^[99] Similarly the self-portrait by Breton in 1937, *Le Verre D’Eau Dans La Tempête*, and Paul Eluard’s *L’Hystérie* (1937) continue to owe much to pre-war psychological models and figures such as Apollinaire.^[100]

The fusion of alchemical, occultist themes and interest with that of scientific and medical innovation was very much a product of the period before the outbreak of war and particularly associated with Apollinaire and his circle of friends and colleagues. It is not surprising then, that these ideas permeated beyond that period and informed the next generation of artists,

most of whom had been in contact with Apollinaire shortly before his death from the influenza pandemic in 1918.

Notes To Chapter Five

[1] For example Jean Clair, *Duchamp et la photographie*. (Paris: éditions du Chêne, 1977); Linda Dalrymple-Henderson, *The Fourth Dimension and Non-Euclidean Geometry in Modern Art*. (Princeton, New Jersey: Princeton University Press, 1983); Stephen Kern, *The Culture of Time and Space. 1880-1918*. (Weidenfeld and Nicolson, 1983); Linda Dalrymple-Henderson, 'X-Rays and The Quest for Invisible Reality in The Art of Kupka, Duchamp and the Cubists.' *Art Journal*, Winter 1988; Linda Dalrymple-Henderson, *Duchamp In Context. Science and Technology In The Large Glass and Related Works*. (Princeton, New Jersey: Princeton University Press, 1998).

[2] Gerald Weissmann, *The Doctor With Two Heads and Other Essays*. (New York: Alfred A. Knopf, 1990) p.9 and Richard E. Weisberg, *The Representation of Doctors At Work In Salon Art of The Early Third Republic in France*. PhD New York University, published facsimilie (Ann Arbor, Michigan: UMI, 1995) p506.

[3] Weissmann, *ibid*.

[4] (No author) *Album Gonnon: Iconographie Médicale 1895-1908*. (Lyon, 1908) pp.181-182.

[5] Weisberg, *op.cit*, p.516. Dr Doyen is discussed in connection to avant-garde interests in chapter 2 of this thesis.

[6] Nancy Knight '“The New Light”: X-Rays and Medical Futurism', in Joseph J. Corn *Imagining Tomorrow: History, Technology and the American Future*. (Cambridge, Massachusetts & London: MIT Press, 1986) p.13. The most comprehensive overview of the relationship between X-rays, new technology and avant-garde artists and their work appears to be Linda Dalrymple Henderson's work on the topic to be found in numerous articles (see note 1 above) and in her most recent publication *Duchamp In Context*. (*op.cit*) Rather than rehearse the well established arguments for these connections here, this chapter seeks to bring attention to additional, novel medical iconography and to artist's work that hitherto have not been addressed by such discussions. For discussion of X-rays in a wider cultural context see Lisa Cartwright, *Screening The Body: Tracing Medicine's Visual Culture*. (Minneapolis: University of Minnesota Press, 1995) particularly Chapter 5 'Decomposing the Body: X-Rays and The Cinema', pp.107-143, and Chapter 6 'Women and the Public Culture of Radiography', pp143-171.

[7] Knight, *ibid*, p.14. Knight focuses on the impact that X-rays had on American culture. However, the general response was similar throughout Europe. Henderson has presented a more detailed discussion of the history and popularisation of X-rays in *Duchamp In Context*, *op.cit*, pp.4-8 and throughout the various discussions therein.

[8] G. Apollinaire 'The Art World. The Manet Exhibition', *L'Intransigeant* 15th June 1910. See BR p.101.

[9] For example 'Electro-radiologie' *La Chronique Médicale*, 1st Juin 1917, No.6, p.109. An earlier edition of the same periodical featured an article on the individual *Ex Libris* emblematic plates made for Doctors of the period and included a design by Henry André for Dr J. Le Bayon, which contained emblematic reference to X-rays and electricity [Fig.119] in *La Chronique Médicale*, 1st Jan.1907, No1, p 716. *La Chronique Médicale* 1906 also contained an article by Dr Lemaire 'Montesquieu et les rayons X', an odd article claiming an hypothesis of 1720 concerning the transparency of corpses has been verified two centuries later by the new technology of X-rays. *Aesculape*, Novembre 1911, (p.xviii) contained a number of advertisements for therapies using *Radium*, *Rayons X* and *Electrothérapie*. The knowledge and images of X-rays and medical technology were thereby available from a diverse set of sources that included more specific connections to Apollinaire and his interests. Indeed Apollinaire was still using reference to X-rays in 1918 in his influential article 'L'Esprit Nouveau et les poètes' *Mercure de France*, 1st December (1918) to describe the 'new spirit', and invoking the innovations of science and technology (aeroplanes, X-rays and so on) provided a poetic eulogy to *L'Esprit Nouveau* that was taken up by artists after the premature death of Apollinaire. Translated extract in Henri Dorra, *Symbolist Art Theories. A Critical Anthologym*(Berkely, Los Angeles: University of California Press, 1994) p.311.

Other periodicals in Apollinaire's collection that could also have contained similar topics included *Hermès*, *Revue mensuelle*, *Etudes scientifiques*, *Littéraires et Philosophiques*, Nos. 6, 8, 9,10,11 &12, (1913); *Nuova Antologia* *Revista di Lettere, Scienze ed Arti*, Nos.1087 to 1102, (1917), nos.1103-1120, (1918) and *Scientia* *Revista di Scietia*, *Revue Internationale de Synthèse Scientifique*, vol.512, (1917) and vol.19, (1918).

[10] Péladan, 'Le Radium et L'Hyperphysique' *Mercure de France*, VI, (1904), pp.613,614,615 & 617. Henderson also cites Péladan's article in *Duchamp In Context*. op.cit, p.23

[11] Indeed, as Henderson has noted Rutherford and Soddy were more than aware of the alchemical symbolism of their work, Soddy even suggesting that radium was possibly the alchemist's 'Philosopher's Stone', the 'elixir of life' capable of transmuting metals. See Henderson, *Duchamp In Context*. op.cit, p.23 and note 74, and Frederick Soddy, *The Interpretation of Radium*. (John Murray, 1909).

[12] *Les Nouveaux Horizons de la Science et de la Pensée: L'Hyperchimie-Rosa Alchemica*. Directeur F. Jollivet Castlot. Nos. 8-9-10, Aout-Sept-Oct (1910). Apollinaire also had copies of *Luce E Ombra*, *Revista Mensile Illustrata Scienze Spiritualiste*, Nos. 6, 7, 8, 9,10, (1907); *Psychische Studien*, No. XI, November (1907) and books of related subject matter; G. Danville *Magnétisme et Spiritisme* (Paris: Mercure de France, 1908); Darget, *Exposé*

des Différentes Méthodes pour L'Obtention de Photographies Fluido-Magnétiques et Spirites. Rayons V.(Viteaux) (Paris: Edition de l'Initiation, 1909). He also had Dr G. Encausse (Papus) *Essai de Physiologie Synthétique Avec 35 Schémas Inédits* (Paris, 1909) and Dr G. Encausse (Papus) *L'Occulte à l'Exposition* (Paris: Editions de l'Initiation, 1901).

[13] *Les Nouveaux Horizons* (1910) Ibid. p.252

[14] Jollivet Castelot was prominent in the Société Alchimique, as was Papus, also known as Dr Gerard Encausse. Apollinaire had no less than five books by Papus dealing with a range of topics from the occult, Tarot divination to 'physiologie synthétique'. See BD I, p.121. The Cubist publisher, Eugène Figuière published a biography of Castelot in 1914, *Fr.Jollivet Castelot: L'Ecrivain-le poète-le philosophe*. See Henderson *Duchamp In Context*. op.cit, p.24, note 79.

[15] For Kandinsky and Theosophy/spiritualism see Sixten Ringbom, *The Sounding Cosmos: A Study of The Spiritualism of Kandinsky and The Genesis of Abstract Painting* (Åbo, Finland: Åbo Academi, 1970); For Mondrian and Theosophy see Robert P.Welsh, 'Mondrian and Theosophy' in *Piet Mondrian 1872-1944: Centennial Exhibition* (New York: Solomon R.Guggenheim Museum, 1971); For Kupka an spiritualism see Jaroslav Andel and Dorothy Kosinski, *Painting The Universe: František Kupka, Pioneer in Abstraction*. (Bonn: Dallas Museum of Art, Kunstmuseum Wolfsburg and National Gallery Prague, VG Bild-kunst, 1997). For more general overview see also exhibition catalogue Judi Freeman et al, *The Spiritual In Art: Abstract Painting 1890-1985*. (New York, Paris and London: Los Angeles County Museum of Art, Abbeville Press, 1986).

[16] This has been established by both Noszlopy and Hicken, see Chapter 4 note 1, and Henderson op.cit. Also see Tom Gibbons, 'Cubism and 'The Fourth Dimension' in the Context of Late Nineteenth-Century and Early Twentieth-Century Revival of Occult Idealism', *Journal of The Warburg and Courtauld Institutes*, 44 (1981) pp.130-47

[17] Linda Dalrymple-Henderson 'Mystecisim, Romanticism and The Fourth Dimension' in Judi Freeman et al op.cit, p.228

[18] Ibid, The letter was from Apollinaire to Madeleine Pagès, 14 October 1915, Henderson quotes Apollinaire "I firmly believe that [man] is a microcosm; moreover, is not every particle of the universe-including the immaterial ether- a microcosm?" which she states echoes the passage in Blavatsky's *Isis Unveiled*, where she describes the *anima mundi*.

[19] A. Mercereau, Introduction to the 55th exhibition of the Manes Society, Prague, Feb-March 1914, in E. F. Fry, *Cubism* (Thames & Hudson, 1978) p.134, as quoted Adrian Hicken, *Apollinaire, Cubism and Orphism*. (Aldershot: Ashgate Publishing Limited, 2002) p.16 and note 63. Mercereau stated that:

Our artists ardently desire to achieve an integral truth as opposed to an apparent reality. In harmony with the innovations of science, today's art seeks to discover ultimate laws more profound than those of yesterday. But just as the principles postulated by Bolyai, Lobatschewski, Riemann, Beltrami and de Tilly have not destroyed those of Euclid but merely relegated them to their true status as one postulate among many...the modern painter does not presume to negate everything accomplished before his time. Old axioms are joined by new ones, and what used to be the summit is now...the plinth on which a new monument is erected.

[20] This has been established for some time now. Of the numerous authors on the topic, the most representative are perhaps those listed in note 21 below.

[21] These observations were first made by Jean Clair, *Marcel Duchamp, Catalogue Raisonné* (Paris: Centre National d'Art et de Culture Georges Pompidou, 1977) p. vol.2, p.33 and in Jean Clair, *Duchamp et la photographie*. (Paris: éditions du Chêne, 1977) pp.21 &22. This was also cited in an expanded discussion by John Moffitt, 'Marcel Duchamp: Alchemist of The Avant-Garde' in Judy Freeman et al, op.cit, p.258, and in Henderson, *Duchamp In Context*. op.cit, p.8.

[22] Annie Besant and Charles W. Leadbeater's *Les Formes-Pensée* (Paris, 1905) details the colour-coded interpretation of auras. This was noted by Moffitt, op.cit, p.258 and note 11. Theosophical interpretation of Duchamp's portrait of Dr Dumouchel has been addressed by John Dee, 'Ce façonnement symétrique', in Jean Clair (ed), *Marcel Duchamp: Tradition de la rupture, ou rupture de la tradition?* (Paris: Union Général d'éditions, 1979) pp351-402.

[23] Henderson, *Duchamp In Context*. op.cit. p.8, Charles Henry had also published *Les Rayons Röntgen* in 1897. Apollinaire's reference was to Duchamp giving up painting for a time to work as librarian at the Bibliothèque Sainte-Geneviève noting that 'he catalogues books not far from the same Charles Henry whose scientific investigations concerning painting exerted a great influence on Seurat and ultimately led to the birth of divisionism.' G. Apollinaire, 'An Engraving That Will Become a Collector's Item' *Paris Journal* 19 May, 1914. See BR, p.389.

[24] Henderson, *Duchamp In Context*. op.cit.

[25] Ibid., p.3.

[26] Ibid, p.8. Henderson notes the abundance of references to X-rays in the occult literature that Kupka would have been interested in.

[27] Virginia Spate, *Orphism. The evolution of non-figurative painting in Paris 1910-1914*. (Oxford: Clarendon Press, 1979) p.104. She discusses 'Mystical Orphism: Frank Kupka' in Section II, Chapter 1, pp85-159

[28] Spate has shown that Kupka may have taken up these theosophical ideas

that were then current concerning the 'atomic' matter of existence which was composed into planes of increasing fineness ranging from the physical plane, the material world, to the highest spiritual plane whose existence can only be assumed since it escapes human consciousness. Mental and spiritual planes were accessible to those with 'spiritual sight' and thoughts and feelings manifested themselves as forms which could be perceived by those with such spiritual sight. Music, seen as a mental-spiritual capacity could therefore be 'seen'. Music was described in terms of vibrations and Kupka referred to such beliefs in a projected book on 'telepathy, psychopathy and psychomotricity'. Spate also speculates Kupka may have read Kandinsky's *Ueber das Geistige in der Kunst* after its publication in 1912 and that he certainly had read Blavatsky's *Doctrine secrète*. Ibid, pp.130-131.

[29] Ludmila Vachtova, *František Kupka* (Prague: Odeon, 1968) p.22, also quoted Jaroslav Andel, op.cit, p.88, note 13.

[30] Henderson, *Duchamp In Context*. op.cit.p.9

[31] Kupka was writing in his notebook of 1910-11, as cited Henderson, *ibid*.

[32] *Ibid*, p.10

[33] *Ibid*.

[34] *Ibid*, p.15.

[35] Henderson briefly discusses Picabia and X-rays citing two works of 1913 as evidence of Picabia's interest in X-rays (fuelled in part by his friendship and association with Duchamp, Apollinaire and those in the Cubist circle). *La Ville de New York aperçue à travers le corps* (1913) alludes to the standard designation for X-ray photography of the period : 'photographie à travers le corps'. See Henderson, *Duchamp In Context* op.cit, pp13-14, for more detail. *Mechanical Expression Seen Through Our Own Mechanical Expression* of late March-early April 1913, represents an electrified radiometer transformed into an X-ray 'focus tube'. For further detail see Henderson, *ibid*, pp.42-43. She has also noted Picasso's awareness of X-rays and the possible connection to Cubist painting techniques. Henderson, *ibid*, pp14-15. Various authors including Henderson and John Richardson have noted Picasso's question in a sketchbook of 1917 'Has anyone put a prism in front of X-ray light?'. Henderson, *ibid*. Richardson, ALP II, p.158. Richardson argues that Picasso's connection with Apollinaire would have furthered his interest in X-rays, 'the area where science and magic could be said to meet.' and he suggests the use of light and shade in the Cadaqués paintings are similar to the light and shade found in X-ray photography. He argues too, that the way foreign bodies show up on an X-ray photograph, (swallowed safety pins etc) are analogous to the small elements in Picasso's Cubist paintings that keep the 'compositions from being totally illegible' and that 'stick out' in the same way as the foreign bodies in an X-ray image do. Richardson, *ibid*. Timothy Mitchell has also explored the relationship between Cubism and Dr Gustave Le Bon's theories

of radioactivity and the news 'rays'; T. Mitchell, 'Bergson, Le Bon and Hermetic Cubism' *The Journal of Aesthetics and Art Criticism*, No.36, Winter 1977, pp. 175-183. For further detail on Le Bon see Mary-Jo Nye, 'Gustave Le Bon and Black Light: A Study in physics and Philosophy in France at The Turn of The Century' in *Historical Studies In The Physical Sciences*, Vol.4, 1974, pp163-195.

[36] Adrian Hicken, 'Simultanisme and Surnaturalisme: Chagall, De Chirico Apollinaire and Cubist Paris. 1910-1914' unpublished PhD thesis, Courtauld Institute, University of London and City of Birmingham Polytechnic 1987, p.285

[37] Ibid, note 27

[38] Ibid. Monica Bohm-Duchen, *Chagall* (Phaidon, 1998) p.89, makes a similar comparison.

[39] Géricault was commissioned to make ten studies of patients suffering from various forms of 'monomania' by Doctors at the Salpêtrière Hospital in Paris between 1821 and 1824. Jean Etienne Dominique Esquirol (1772-1840) was a French psychiatrist who worked under Pinel initially and later established his own private asylum on Rue de Buffon, Paris. He also worked at the Salpêtrière Hospital and, following Pinel, believed that mental illness had its origin in the passions of the soul. Esquirol's text used engravings of artist's studies of various forms of mania. See Peter Hamilton, *The Beautiful and The Damned: The Creation of Identity in Nineteenth-Century Photography* (National Portrait Gallery, 2001) p.79. For further detail on French psychiatry in the nineteenth-century see Jan Goldstein, *Console and Classify: The French Psychiatric Profession In The Nineteenth Century* (Cambridge: Cambridge University Press, 1987).

[40] Anthea Callen, *The Spectacular Body. Science, Method and Meaning In The Work Of Degas*. (New Haven & London: Yale University Press, 1995) p.50.

[41] This has been noted more recently by a number of authors including Elaine Showalter, *The Female Malady : Women, Madness and English Culture. 1830-1980*. (Virago Press, 1987) p.149; Denise Russel, *Women, Madness and Medicine* (Cambridge and Oxford: Polity Press, 1995) p.21 & Callen, op.cit, p.56.

[42] Callen, op.cit, p.50

[43] A similar point was made by Rebecca Zorach, 'Despoiled at The Source' *Art History*, Vol.22, No.2, June 1999, p.253. Zorach's article however was more concerned with the possibility of combining psychoanalytical and materialist approaches to Renaissance visual culture.

[44] Russell, op.cit, p.13. She cites Y. Ripa's findings from *Women and*

Madness (Cambridge and Oxford: Polity Press, 1990) pp13-32.

[45] Michel Foucault, *Madness and Civilization* (New York: Vintage, 1973) p.237.

[46] André Breton and Louis Aragon writing in *La Révolution Surréaliste* No.11, 1928, p.20, cited by Briony Fer, 'Surrealism, Myth and Psychoanalysis' in B. Fer, et al, *Realism, Rationalism, Surrealism: Art between the Wars*. (New Haven & London: Yale University Press & The Open University, 1993) p.212.

[47] Pierre Janet, *L'Etat mental des hystériques* (Paris, 1894) pp.40-47. As quoted in Hal Foster, *Compulsive Beauty* (Cambridge Massachusetts & London: MIT Press, 1993) p.49, note 61.

[48] Georges Villa 'La signe de babinski' in *Chanteclair*, No.89, Oct.1911. Babinski is shown with a rather obvious word-play on signe/cygne. Villa (1883-?) exhibited at the Société des Artistes Française and the Salon des Humoristes amongst other places. He worked for *Le Rire* and *Comedia Illustré* and was known mainly for his caricatures which included one of Dr Doyen. (See Chapter Two for further discussion of Doyen and the avant-garde).

[49] No author, *La Leçon de Charcot. Voyage dans une toile*. (Paris: Musée de l'Assistance Publique, 1986) exhibition catalogue, p.85, entry no.171.

[50] Jan Goldstein, 'The Uses of Male Hysteria: Medical and Literary Discourse In Nineteenth Century France' in *Representations*. 34, Spring 1991, p. 156, as cited Foster, *ibid*, p.53, note 70.

[51] Katia Samaltanos, *Apollinaire: Catalyst for Primitivism, Picabia and Duchamp*. (Ann Arbor, Michigan: UMI Reserach Press, 1984) pp.79-89.

[52] See note 23 above. Duchamp's notes stated he would consult 'manuals on psychology'. Cited Samaltanos, *ibid*.pp.79-80

[53] Samaltanos, *ibid*, p.80.

[54] Elizabeth M. Legge, *Max Ernst.The Psychoanalytic Sources*. (Ann Arbor, Michigan: UMI Reserach Press, 1989) pp111-120. Legge's work gives the most detailed account of psychoanalytic material that informed the early Surrealist group, Ernst, Breton and the Eluards' interest in psychoanalysis is addressed.

[55] Samaltanos, *op.cit*, p.84. Samaltanos quotes extensively from the article. Apollinaire had been attending a dinner with some psychiatrist friends and had asked one to explain Bourget's methods and was answered in a letter which Apollinaire quoted in his article. Samaltanos suggests the doctor who supplied the information by letter was probably Dr Jean Vinchon, Apollinaire's friend who worked as a psychiatrist at the St. Anne hospital in Paris. *Ibid*, p.85.

[56] J. Vinchon, 'L'Enfer de la Bibliothèque Nationale', *Revue Psychiatrique*, April 1913. Cited Samaltanos, op.cit, p.85. Vinchon singled out titles of more particular interest to *aliénistes*. Vinchon's book *L'Art et la folie* (1924) mentions works accumulated by Doctors Chambard, Serieux and August Marie. (p.20). He also references material from *Aesculape*(1913) an edition owned by Apollinaire, and makes unqualified, humorous association of formal similarities between pictorial work of psychotics and Apollinaire's calligrammes. In a postcard to Mollet of August 1918, Apollinaire expresses willingness to write a 'petit note sur lui [Vinchon] à l'Europe Nouvelle'. *La revue des lettres modernes*. A proof copy of *Alcools*, bearing Apollinaire's manuscript corrections and the dedication 'Au docteur Vinchon, son ami Guillaume Apollinaire,' is a further indication of the intimacy of the two men before 1914. The item was sold at auction, 26th. November, 2001 by Thierry & Lanna, Brest. See for more details *Que vlo-ve?* No.18 avril/juin 2002, p.49.

[57] J. Vinchon, *L'art et la folie* (Paris: Stock, 1924) p.70. Also cited Samaltanos, ibid.

[58] Foster, op.cit, p.49.

[59] In an article entitled 'The Disappearance of Dr Otto Gross', *Le Mercure de France*, 16 Jan. 1914, Apollinaire described the doctor's multiple activities, mentioned his articles on the subconscious nature of creativity and expressed his astonishment at Dr Gross' arrest. The famous Austrian psychiatrist was unjustly imprisoned in a mental asylum just before attempting to publish his ten years of research in a book *L'Ethique nouvelle*. This caused a public outcry in both Germany and France where he had supporters. Apollinaire remarked that the entire affair was attributed by the German authorities who stopped the realisation of Gross's publication, to 'a complicated hereditary question of neuropathy' which he saw as something that did not at all justify the action taken by those authorities. See Samaltanos, op.cit, pp.85-86. Of course Otto Gross and Freud were important figures to certain artists working in Dada some years later.

[60] Dr Pamphylla, 'La Médecine au Salon d'Automne', *Le Journal*, No.6962, 19 Oct. 1911, p.6.

[61] In response to a Dr Artault describing Cubism as a pathological phenomenon known as 'scintillating scotoma', the most frequent symptom of ophthalmic migraine, Apollinaire attacked this 'mania for seeing diseases everywhere', in 'Art and Medicine,' *Paris Journal*, 15 May 1914, as cited Samaltanos, op.cit, p.86.

[62] G. Apollinaire, *Paris Journal*, 22 June 1914. The publication by Pierre Ouvray, *Une Série sur les Fous*. As cited Samaltanos, op.cit, p.86 and note 150.

[63] G. Apollinaire 'A Medical Artist', *Paris-Journal*, 1st August 1914. As

cited Samaltanos, op.cit, p.86, note 151. Apollinaire also wrote two other articles related to medicine 'Chirurgie esthétique' and 'Traitement thyroïdien' in *Excelsior*, 31 July, 1918 and 14 October 1918 respectively. See Guillaume Apollinaire, *Oeuvres en prose*, Michel Décaudin (ed) (Paris: Gallimard, 1977) pp.506 and 512.

[64] G. Apollinaire 'Neurosis and Modern Art', *Paris-Journal*, 1st August 1914, translation in BR p.437.

[65] Samaltanos, op.cit, p.87.

[66] Ibid, p.81. Paracelsus was the Renaissance Swiss alchemist, doctor and founder of hermetical philosophy and a figure to with whom Apollinaire identified.

[67] Samaltanos, op.cit, p.87. She also notes that Apollinaire probably knew Réja personally, p.208, note 155.

[68] Ibid, p.88.

[69] Ibid.

[70] Ibid and pp.88-100. She also notes that Apollinaire himself visited hospitals and showed awareness of the art collections of medical men, notably Dr Billard and Dr Tzanck, the latter being the same Dr Tzanck (the dentist) for whom Duchamp created the *Tzanck Cheque* in 1919. See *Paris Journal* 14 June 1914, 20 June 1914 and 24 July 1914 respectively, as cited Samaltanos, op.cit, pp.88-89 and p.208, note 163.

[71] Adrian Hicken, *Apollinaire, Cubism and Orphism* (Aldershot: Ashgate Publishing Limited, 2002) p174.

[72] Paul Guillaume described the Apollinairian legacy in 'Guillaume Apollinaire est mort', *Les Arts à Paris*, no.3, 15 December 1918, p.3, as cited Hicken, (2002) op.cit, p.174 and note 3.

[73] Ibid, p.174. Hicken also notes that Breton reproduced images from pre-1914 editions of *Aesculape* and *Annales des sciences psychiques*. Ibid, p.223, note 7.

[74] See Elizabeth Legge, op.cit. for further detail. Also see Jennifer Mundy (ed), *Surrealism. Desire Unbound* (Tate Publishing, 2001) exhibition catalogue, which include essays by various authors who have acknowledged the debt owed by certain Surrealist artists to Apollinaire and his interests. Of related interest is M. E. Warlick 'Max Ernst's Alchemical novel: 'Une semaine de bonte' in *Art Journal*, Spring 1987, pp.61-73. For discussion on Charcot, Dr Pierre Janet, Dr Leroy and Surrealism see Jennifer Gibson 'Surrealism Before Freud: Dynamic Psychiatry's "Simple Recording Instrument"' in *Art Journal*, Spring 1987, pp.56-60.

[75] Legge, op.cit, p.86, Allendy's thesis was entitled *L'Alchimie et la médecine*, (Paris: Chacornac, 1912).

[76] Legge, ibid

[77] Ibid, p.87. Allendy's relationship with the pre-war avant-garde is suggested by Severini's *The Argentine Tango*, signed and dated 1913, and inscribed *au Doct. R. Allendy*. See Hicken, (1987) op.cit, p.81.

[78] For further detail on Weininger's life and work see Chandak Sengoopta, *Otto Weininger: Sex, Science, and Self in Imperial Vienna*. (Chicago & London: University of Chicago Press, 2000).

[79] James Thrall Soby, *Giorgio de Chirico* (New York: The Museum of Modern Art, 1966) p. 29

[80] Hicken (2002) op.cit. discusses these works and the relationship of Apollinaire to de Chirico's work.

[81] Ibid, p.123.

[82] Soby, op.cit pp.28-9, 54-55. This has also been established by Hicken, (2002) op.cit, p.123.

[83] Hicken, ibid.

[84] Apollinaire 'Le gant rose' *Paris Journal*, 4 July 1914, as cited Hicken, ibid and note 21, p.215.

[85] This was first noted by N. Calas in *Artforum*, vol.13, May 1975, p.52. It is also addressed by Hicken, ibid, p.124, and note 23, p.215.

[86] Hicken, ibid p.127 and note 44, p.216, noted that the imagery of Apollinaire's poem dedicated to Picabia invoked Praxiteles, the classical sculptor, the medical and surgical supplier's shop front that the two had passed by on the evening that inspired the poem and the strange connection of the reference to the 'cavalier qui à Venise en a trois' in the poem which related to the idea that the males of the Colleoni family were reputed to have three testicles each. See Chapter 2 notes 150 and 156 of this thesis for further detail. For further detail on the iconographic reading of de Chirico's painting see Hicken, ibid, pp.123-128.

[87] Ibid, p.141.

[88] Ibid, p.142. Apollinaire used this idea in the opening line of *La Poète Assassiné*, where he states 'Like Orpheus all poets were threatened with a tragic death'. Hicken notes that although it is known now in the form

published in 1916, Apollinaire had intended to stage a theatrical production of *La Poète Assassiné* in 1913. Ibid, note 7, p.221

[89] For detailed analysis of this work see Hicken, *ibid*, pp.141-144.

[90] *Ibid*, p.142.

[91] Like Fludd, he used the apparent magnetic bipolarity of the human body and the influence of the all pervasive vital fluid. Mesmer became a pioneer of hypnotism through his use of 'suggestion' transferring magnetic properties to the patient. See Alexander Roob, *The Hermetic Museum: Alchemy and Mystecism* (Köln: Taschen, 1997) p.621.

[92] Deborah Silverman, *Art Nouveau in Fin-de-Siècle France. Politics, Psychology and Style*. (Berkeley, Los Angeles: University of California Press, 1989) p.76. In 1899 during the Paris exhibition, the International Congress of Physiological Psychology addressed such topics. Silverman, *ibid*.

[93] *Ibid*.

[94] Josep Palau I Fabre, *Picasso: Life and Work of The Early Years, 1881-1907*. (Oxford: Phaidon, 1981) p.270.

[95] Hypnotism had been discredited during the nineteenth-century because of the association with Mesmer and his hypotheses concerning animal magnetism. Charcot dismissed the Mesmer legacy as metaphysical quackery but defended the medical use of suggestion and hypnotism under clinical conditions. For further detail see Silverman, *op.cit*, p.84.

[96] Silverman, *Ibid*.

[97] Novels by Guy de Maupassant, *Le Horla* for example or Jules Clarétie *L'Obsession, moi et l'autre*, that dealt with the strange visions and unaccountable actions of the unconscious. Silverman has established the correlation between Symbolist literature and the emergence of '*Psychologie Nouvelle*' in Chapter five of her book. Silverman, *op.cit*

[98] Alexander Waintrub 'Crimes of Passion: Surrealism, Allegory and the Dismembered Body'. Unpublished PhD thesis, University of California, Los Angeles, 1996, p.12.

[99] For further detail see Jonathan P. Eburne 'Surrealism Noir' in Raymond Spiteri and Donald LaCoss (eds) *Surrealism, Politics and Culture*. (Aldershot: Ashgate Publishing, 2003) pp.91-110.

[100] For further detailed discussion see M. Stone-Richards 'A Type of *Prière D'Insérer* : André Breton's *Le Verre D'Eau Dans La Tempête*' in *Art History* Vol.16, no.2, June 1993, pp.313-335.

Conclusion.

Research for this thesis has unearthed a rich seam of references, sources and connections of a medical kind with the avant-garde artists and writers working in Paris during the period 1905-1925. Those connections, which far outnumber what was possible to present here, ranged from the apparently minor and inconsequential to connections that have profound and far-reaching implications for the conception of avant-garde artistic production in this period.

The most persuasive evidence centred around the possibility of collaboration between those artists and writers who were in contact with the poet Guillaume Apollinaire. His extensive collection of medical-related books and journals is worthy of further scrutiny since what is presented here is not exhaustive, but has provided compelling evidence that the links between medical discourse and avant-garde art production were not arbitrary. Indeed the climate of cross-fertilisation of ideas and themes in Parisian cultural circles at this time is crucial to understanding the wider dissemination of medical themes amongst the artists in question.

Apollinaire was a link between pre-war Parisian artistic interests and those developed in the aftermath of war and beyond the poet's death in 1918. Of course there was also the direct contact between those in the medical profession and many of these artists and writers, some of whom had trained in medicine before embarking on artistic careers.

Outside the possibilities of direct collaboration, there is also the more general public interest in medical-innovation and techniques as well as ambivalence toward the medical profession itself. Such interests acted as a

catalyst for a diverse range of productions from the literary to the ephemera of newspaper articles, illustrations, and humorous cartoons.

In the time it has taken to complete this thesis the number of authors who have begun to investigate this area of avant-garde art remain relatively few. Pascal Rousseau's recent investigations centred on the specific case of Apollinaire, Dr Doyen and Cubism (Rousseau 2001). However, as this thesis has begun to demonstrate, the connection with medical discourse was something that can also be established in other artist's work of the early twentieth century.

Accordingly this thesis represents the first attempt to bring those disparate connections together. Early research indicated that the topic extends far beyond the temporal range imposed here. Indeed a cartography of medical discourse and fine art practice can be mapped from the late nineteenth century, and earlier, through to today's more post-modern artistic productions. This is an area worthy of investigation but one that is beyond the scope of this thesis.

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The place of publication, unless stated otherwise, is London. Throughout end notes to this thesis the following abbreviations were used for frequently cited sources:

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