

HISTORICAL DOCUMENTS

THE CORREA/REICH AFFAIR

**ANATOMY OF THE SENSATIONALIST MISREPRESENTATIONS REGARDING
THE WORK OF THE CORREAS AND THAT OF DR. WILHELM REICH**

by

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Contents

I. Introduction

II. A little knowledge can hurt a lot

1. Concerning the libelous interventions of Mr. Douglas Marett
2. Concerning the sensationalist leaps of faith of Mr. Douglas Marett
3. Let Reich stand for what he stood!
4. Summary of the differences between the Correa PAGD reactors and Reich's Vacor tubes

III. How everyone, even the Virgin Mary, also discovered the PAGD by accident

1. The edict of Inquisition enunciated by Torquemada Marett against the Correas
2. One more travesty of Reich's work: the pseudo-GM effect "of the Orgone" reported in Mr. Douglas Marett's "The Orgone Motor Mystery- Solved!" Internet posting.

IV. The Orgone Motor: a mystery that will remain UNresolved

1. To each his own
2. Summary of the differences between the Correas' inverter technology and Reich's orgone motor

V. Easy come, easy go

I. Introduction

"Take no prisoners."

E. Zapata & P. Villa, 1913

First of all, and on a humorous note, we would like to publicly thank Mr. Douglas Marett for the sensationalist publicity he has given our work of late. George Burns, we believe, used to say that any publicity is good publicity- so, with this in mind, we here express our gratitude for his nefarious attention.

But secondly, and on a more serious note, we contend that the recent articles and forum interventions of Mr. Douglas Marett are not only misrepresentative of our relation to him and of both our work and that of the late Dr. Wilhelm Reich- they are also libelous. These misrepresentations are the subject of this article.

II. A little knowledge can hurt a lot

"Of course benevolence is not your strong point. When I am no longer capable of loving and admiring people and things (not very many), I'll feel dead, mortified. But as for you, it seems you were born sour; all your art is *in allusion*. [You say:] "I won't be taken in...I'm writing a book on you, and I am going to show you..." Of all the interpretations you'll generally choose the most wicked or the vilest."

G. Deleuze, "I have nothing to admit", Letter to M. Cressole, 1973

It is an unfortunate fact that whereas the most interesting and complex discoveries must be fought for and won over years of long, arduous and committed work, there are few thoughtful enough to even notice that they have occurred- let alone the effort and thought required to give them life. It is really for these few we have chosen to write.

On the other hand, it takes only minutes to write a vacuous, sensationalist review with the sole objective of defaming and disparaging the work and reputation of others. Such is the case with the recent pseudo-science, Inquirer-style article entitled "The Orgone Motor Mystery- Solved!" by Mr. Douglas Marett (currently posted on the Internet), written from his "Another Orgone Research Laboratory". The item in and of itself, as well as Mr. Marett's recent forum interventions, are so poorly conceived and written, and so filled with deliberate inaccuracies and misrepresentations concerning both our work and Dr. Reich's, they hardly merit response. However, Mr. Douglas Marett has chosen not only to muddle these two very different lines of investigation, but to also, in a public forum, *claim a personal knowledge of our work* which he does not have, a close relation to us which never existed, to have worked with us in our PAGD research which he never did, and to top it all, an intent on our part to mislead the Patent Office- a spurious and libelous assertion which he cannot in any way substantiate but, for which, we intend to hold him fully responsible.

Here then, for the record, is our response to the scurrilous claims put forward by Mr. Marett as well as an in-depth examination of the clear-cut differences between the experimental work conducted by Dr. Wilhelm Reich in the 1940s and 50s and our own patented PAGD technology. As the reader will see, Reich's discoveries are irrelevant both scientifically and technically to the diverse inventions we have patented.

1. Concerning the libelous interventions of Mr. Douglas Marett

"I cannot save you from the muck. Only you can do that."

Wilhelm Reich, "Listen Little Man", 1943

As has often happened in the past, Mr. Douglas Marett has again surfaced in another attempt to somehow associate himself with our discoveries. Having learned of the issuance of our patents and the recent publicity given to our work, he has now chosen to appear as a self-elected Torquemada of our work and, by the same token, as a white knight defender of some nebulous Reichian orthodoxy. Well, Nietzsche had Wagner, Reich had Brady and Mills, Deleuze had Cressole and we have Mr. Douglas Marett. It seems it is inescapable.

In his web page article "The orgone motor mystery solved!", p.1, Mr. Marett misrepresents his relationship to Dr. Correa:

"...Paulo Correa Ph.D. (sic) a close friend which I had known since 1978..."

In point of fact, we first met David and Douglas Marett on January 12, 1980, when they were 17 years old. Our relationship with Douglas was always tenuous at best. Our introduction was made by Prof. E. Mann, then a sociology teacher at York University in Toronto, who requested we meet the young brothers in the hope that we could instruct and help them on matters related to Reich's work. We had, just prior to this, been involved in setting up the first Conference Prof. Mann organized in Toronto on Reich's work in the fall of 1979. Prof. Mann was aware of our work and of several essays we had written on the subject of both Reich's investigations into biogenesis and his experimental physics work on 'Orgone energy' (as Reich so termed the dynamic aether that fills space), and as well that we had constructed a medical accumulator and with it had obtained some very interesting results which confirmed the thermal measurements performed by Reich. So, his intention was for us to befriend and advise the two youths.

When we first met the Maretts they had read only popular and very superficial articles about Reich but it was we who introduced them to his actual writings. (We do not, however take any credit or responsibility whatsoever, for the incoherent studies of Reich's work which Mr. Douglas Marett has posted on the Internet. These he may and must take full credit for!) While David, for a while, became interested in exploring the numerous scientific propositions considered by Reich and in pursuing his own lines of work, Douglas became obsessed with the potential notoriety and wealth unlocking of the orgone motor mystery might afford him and in obtaining whatever information he could regarding our experimental research, which he was not privy to. Yes, there were indeed frequent general discussions concerning the nature and function of Reich's motor during those early days of our association (early 1980s), but Douglas Marett never worked with us on any vacuum tube research as he now comes to claim, nor was he ever invited to our vacuum research laboratories. In early 1992, following frequent breaks and very reluctant approximations in our relations, we chose to cease associating altogether with Douglas.

Mr. Douglas Marett writes also in his web page article "The orgone motor mystery solved!"

"Both from conversations I had with the Correas, as well as from visits to their lab until 1990, it was my understanding that they continued to make a concerted effort to replicate Reich's VACOR experiments and get to the bottom of the motor force."

For the record, Mr. Douglas Marett has never, at any time, visited our plasma physics laboratory. He was never, at any time involved in our early attempts at replicating Reich's Vacor experiments nor was he involved in any way in "the initial stages of our PAGD discovery", as he also now claims. In 1989, Mr. Douglas Marett was informed that we had successfully replicated Reich's experiments with Vacor tubes back in 1986, and he was also informed (in 1990) that we had moved away from this work to develop a new power technology based on our own novel discoveries (made in 1987).

Indeed, the first observations of the PAGD phenomenon took place during our investigation of X-ray production, a subject which, the reader will note, was never the subject of any experimental investigation by Reich. We quote from our LABOFEX Technical Report Series, S2-003, 1993, entitled "Design of Basic XS NRG Power Modules":

"The focus of our investigation was the study of the effects on X-ray production which UV (ultraviolet) reflective electrodes with low photoelectric work functions have. These studies (1980-1987) were performed at very high vacua and at low to medium high voltages (10-50kV). They led to the development of a method (1987) to utilize sustained low voltage X-ray production to clean parallel plate electrodes from residual contaminants, such as adsorbed gases, which are still present before pumpdown,.

In the course of this work (we) observed (1987) the coexistence of quasi-regular particle-like discontinuities in the plasma aspect of normal and abnormal glow discharges having a minimal positive column. These events spontaneously originated localized discharge cathode jets that triggered the plasma glow, in a fashion quite distinct from the photocathodic flashing of a cathode or from an externally pulsed plasma glow (forced flash over). Though independent from the atomic nature of the rarefied gas, this novel phenomenon could be influenced by the nature of the atomic or molecular gas substrate. However, it appeared to be far more dependent on the chemical nature of the electrode metal utilized and its field-emission work function. Given our familiarity with the autoelectronic mechanisms of discharge responsible for the so-called "vacuum arc discharge" (VAD), it would soon become apparent that these discontinuities were elicited by spontaneous electronic emissions from the cathode under conditions of cathode glow current saturation.

In the process of investigating this unknown phenomenon (1987-89), all the physical parameters of this self-pulsed emission-triggered plasma discharge (pressure, gas substrate, voltage, amperage, electrode distance, electrode area, electrode material, work function, type of stimulating current, electrostatic geometry, vessel temperature, etc.) were systematically examined until an isolated regime of discharge was uncovered."

Mr. Douglas Marett wanted very much to find out more about this novel work and, seeing our relationship close to rupture, he requested, on October 22nd, 1991, a meeting at our home. In the course of this meeting, he presented to us *a signed and unsolicited letter of intent* in which he proposed to invest in a start-up corporation which would utilize our new energy PAGD technology- a notarized copy of which is in our possession. The fact that we rejected his offer outright is in our view the "repressed" that now returns in the form of Marett's gratuitous attacks on us and our work. While Mr. Douglas Marett now speciously accuses us of a violation of scientific ethics- claiming that the PAGD discovery is really Reich's discovery of the "Orgone Motor" (which it certainly is *not* by any stretch of the imagination- as will be further demonstrated in the following sections), had we accepted his offer in 1991, it is rather apparent that Mr. Douglas Marett would have been happily "violating those ethics" along with us !

For the record also, we do not know Mr. Colin Quinney who has quite improperly introduced

Mr. Marett to the Vortex-1 forum as

"an independent and professional researcher/inventor, who worked with Paulo Correa, PhD, on an earlier version of the Tube (sic) from the mid to the late 80's".

Whoever he is, he should be advised that if he intends to make public introductions in open forums, he should begin by cross validating his facts. Mr. Marett has *never* collaborated with us in any of our physics research, let alone the PAGD work- *at any time*.

The *only* experiments in Physics Dr. Correa ever engaged in with Mr. Douglas Marett related to background and calibration studies undertaken using Geiger-Muller tubes, in 1984, when he attended, together with Mr. Douglas Marett's brother Dave, a course in radiation physics at the University of Toronto. That was in 1984, years before the discovery of the PAGD had even occurred.

Therefore, when Mr. Douglas Marett writes regarding the discovery of the PAGD:

"I do not need to speculate whether Paulo or Alex got the idea from Reich - *I was there*. I helped with some of the initial experiments, and most importantly, Paulo told me that this was the case" (*our emphasis*). (Letter to M. Carrell, 16.11.96, posted in Vortex-1)

he has chosen to publicly and deliberately misrepresent both his relation to us and what he was told by us. Douglas Marett was not "there" and was never told by us that the PAGD research was an idea taken from Reich. Where does Reich refer to such idea? Nowhere! Douglas Marett was told we had repeated Reich's experiments with Vacor phenomena and, years later, as an outgrowth of unrelated work, that we had discovered an unrelated phenomena which we were in the process of developing. Moreover, our *initial* experiments in Vacor research took place in 1979, when we had our first vacuum tubes produced in the US. This was before we had even had the displeasure of making Mr. Douglas Marett's acquaintance.

On his Home Page, Mr. Douglas Marett continues with more of the same fabrications:

"In early October, 1990, Dr. Correa informed me that he had succeeded in not only running motors off of (sic) modified VACOR arrangements(...)" (p.1 of "The Orgone motor mystery solved!").

This claim is utterly untrue. We have never claimed to Douglas Marett or to anyone else that we succeeded in running motors with "orgonotic pulsation" from "VACOR arrangements" (see below). In point of fact, no reasonable technical assessment could justify Reich's publications as relevant to our own technology. This will become rather obvious in what follows.

2. Concerning the sensationalist leaps of faith of Mr. Douglas Marett

Having thus laid his rewriting of our personal history, Marett moves on to his premature identifications, allusions and confusions.

In a posting to Vortex-1 (21.11.96) Mr. Douglas Marett expounds on his so-called replication of our PAGD protocols and thereby illustrates to the trained eye, that whatever he is producing in his tubes, it certainly is not the autogenous PAGD regime:

"...tubes have become heavily mirrored with only one hours (sic) operation (sic), often leading to arcing..."

He then attempts an outright appropriation of *what is art taught in our patents* as he continues:

"In order to eliminate this problem, I have resorted to tube designs resembling a geiger-muller (sic) tube". [This is promptly followed by the hollow pomposity:] "This has solved the sputtering problem".

This is pure "Dougspeak". The reader of our patents will recognize this claim as having been directly drawn from our patent as we have there taught planar, *coaxial* and point-to-surface electrode assemblies for all who care to look. In the same vein, with supreme confidence he continues:

"Generally, the PAGD operates most effectively when the tube and its metal components have been thoroughly out-gassed by well-known heating and evacuation techniques, and then a controlled input of a new gas, such as air or argon, is introduced..."

But when did Reich ever admit controlled inputs of gas to his Vacor tubes? Or equally, when did he utilize air mixtures in same? *This is art Douglas Marett learned from our patents and nowhere else*, but which he now presents as *his own* work...that is, *now* that he has read the Correa patents.

Did Wilhelm Reich, in fact, ever teach any art regarding gas control which pertained to his Vacor tubes? Certainly not. We quote from Reich's "The Oranur Experiment", p. 247:

"Counter tubes were constructed [by a manufacturer] according to the same design as the ones used hitherto (...) They were, however, not filled with gas".

Reich discusses at length this contention under the rubric "Orgonotic Geiger Action Without Gas", p.243 and following of the cited work. This point was critical indeed for Reich's theory of the "orgone", as a massless form of energy that fills space devoid of matter:

"(...)matter in the form of gas molecules or air molecules IMPEDES the energy function of the cosmic OR energy, and OR energy is strongest or "fastest" in space free of gas" [Reich's own emphasis throughout].

If "orgonotic pulsation *in vacuo*" were shown to *be dependent upon gas concentration, there would*

be no foundation for Reich's theory of the orgone .

Furthermore, Mr. Douglas Marett's claimed expertise on Reich's work should have taught him that Reich's contention was that the extremely fast rates of counting he obtained in his Vacor tubes required very high vacua (greater than 0.0005 Torr), and that Reich had been adamant that the events he observed had nothing whatsoever to do with ionization discharges, were independent of gas fill (yes, independent even of argon gas fill!!) and operated at count rates much, much greater than those attainable by the PAGD regime. Moreover, Reich describes how he had persistent trouble sustaining production of these high count events in his Vacor tubes, and he attributed this problem either to variations in sunspot activity, or to the need to attain yet higher vacua. Reich writes in "The Oranur Experiment", p. 250:

"Another interpretation would require that, possibly, better vacua would have to be devised to demonstrate the phenomena at all times".

Unless Mr. Douglas Marett's argument is that Reich's Vacor tubes were badly manufactured and thus leaked gas from the atmosphere across their seals, and therefore *that Reich did not know what he was doing* (an unlikely proposition indeed), there is *no way* that Reich could be referring to the phenomenon of the PAGD regime that we alone have discovered. Furthermore, had Reich in fact used badly manufactured tubes whose seals were not trustworthy, then he would have been squarely wrong about his "orgonotic pulsation in vacuo": he would not have needed higher vacua but lower vacua. He would not have needed to charge the said Vacor tubes inside an "orgone accumulator". It would have simply sufficed to have a little leakage of air...So let us see if we understand Mr. Marett's devastating comparison of Reich's work to our own: "orgonotic pulsation *in vacuo*" is actually the PAGD regime because Reich's tubes were leaky and he hadn't the brains to notice... Reich would also have had to have been dead wrong on the oscillatory counts measured. This is simply too much to swallow.

Let us review a *few* of the *simple* facts:

Reich's Vacor tube "impulses" required vacua better than 0.0005 Torr, and yet they utilized low breakdown voltages (200 to 500V). Moreover, Reich claimed that improved functioning of his Vacor tubes depended on higher vacua, higher rates of pulsation being attainable as there is less residual gas in the vacuum enclosure. Conversely, with the PAGD, breakdown voltage increases with increasing vacuum, as per the Paschen curve - which is shown in our patents, while pulse rates *decrease with increasing vacuum*. *At the vacua utilized by Reich for his Vacor tubes, it would be simply impossible to produce any PAGD with such low voltages*. Shown in Fig. 11 of our US patent #5,502,354 are the Paschen curves for tubes utilizing areas both smaller and larger than Reich's Vacor tubes, and which unequivocally demonstrate that, at vacua lower by one order of magnitude than those utilized by Reich, you need at least 850 V to sustain any PAGD pulsation. In the vacuum range of Reich's Vacor tubes, you would need well in excess of 1500/2,000V to

produce any PAGD. Therefore the PAGD has characteristics opposite to those ascribed by Reich to the "orgonotic pulsation" he observed in his "Orgone-charged Vacor tubes".

Reich's "orgonotic pulsation" in Vacor tubes was erratic and difficult to control, the PAGD is not.

Reich's "orgonotic pulsation" in Vacor tubes required high and higher vacua, and the phenomena (lumination and fast impulses) he observed were, in his own words, independent of gas fill; the PAGD does not require high vacua, and in fact the PAGD regime is really a low pressure gas discharge.

Reich's "orgonotic pulsation" in Vacor tubes had very high rates of discharge (it was the quest for higher CPM rates, as he titled one of the relevant sections in the cited "Oranur Experiment", that led him to his Vacor tubes), the PAGD does not. In fact we quote from column 24, line 59 of our US patent 5,449,989: "Unlike the typical VAD regime, the PAGD is neither a high frequency oscillation, nor does it occur in a random fashion". Reich's "orgonotic pulsation" in Vacor tubes operated *at high vacuum and yet low voltage*, and contravenes therefore Paschen's curve, whereas the PAGD phenomenon obeys the Paschen curve.

Again, indicative of both Mr. Marett's misunderstanding and his attempted appropriation of our work, is point 2 of his Vortex intervention on 21.11.96, where he complains that he has found

"a series of technical problems which were addressed only vaguely in the patents": "*I have found* that as the tube is allowed to pulse, the pulse rate rapidly declines and then stops altogether. Correa (sic) addresses this problem in his (sic) PCT application. (...) I am under the impression that this process is caused by the electrical cleanup of the gas inside the tube." (*our emphasis*)

We have, it should be noted, explained in great detail (which apparently Mr. Douglas Marett has not bothered to read) the conflicting vapour release and gas gettering mechanisms present in the PAGD reactors (see for example columns 25 and 26 of our US patent #5,449,989), as well as the results of overheating the PAGD cathode. Yet, Mr. Marett induces the reader to believe that this matter (which he has failed entirely to grasp) is "only vaguely" addressed in the patents. He therefore requests help from the readers of Vortex-1, unwilling, as usual, to help himself by doing the hard work of reading, learning and conducting proper experimentation!

For the record, in our laboratory we have tubes of varied construction that have been *sealed, as long ago as 1989, whose envelopes remain reasonably clear, the cathode pitted throughout and which still perform by expected PAGD standards after intensive operation*. The fact that Mr. Douglas Marett manages to *carbonize* his vacuum tubes in one hour of operation clearly indicates that he is doing something severely wrong! (Well does Mike Carrell preach in the desert of Vortex-1 when he writes "Gentlemen, please read the patents".) Such rapid tube destruction by Mr. Marett, at the very least, suggests that he is operating in the VAD range under conditions where the

discharge is not self-extinguishing. His statement that "eventually [the pulsation] reverts to a glow discharge", may also suggest that what he is getting is a thermionic abnormal glow discharge after so much "VADing" of his tubes. But who is to tell? We are quite convinced, from what he has written, that Mr. Marett has no idea in which plasma discharge regime he is operating. What we can state with certainty is that it is surely not within the PAGD regime!!

In Mr. Marett's "The Orgone Motor Mystery Solved", p.1., he writes:

"based on my visit to the [WR] museum, we [meaning: Dr. Correa and Douglas!] succeeded in determining the material arrangements of the various counters, autoscalers, and impulse recorders that Reich used, and discussed many of the more modern alternatives that would be appropriate".

The fact of the matter is that- *loosely* based on photocopied material from the Wilhelm Reich museum which Mr. Douglas Marett obtained from the Reich museum relating to "counters, autoscalers and impulse recorders", as well as the Western Electric motors which he opened and photographed, he built his own version of the Herbach and Rademan CMB-3A GM counter that Reich had utilized, but could never get it to work. Hence, sometime after he had gone to Orgonon, he requested Dr. Correa's assistance to resolve his CMB-3A counter impasse as he knew Dr. Correa had already built a replica of the amplifier section of the same counter. What Mr. Marett brought to our home was an entire counter, hybrid with respect to the power and rectification sections, and thus, was not a replica of the entire Herbach and Rademan counter. After showing Dr. Correa the tracings Douglas Marett had obtained from the Reich Museum's CMB-3A (during Marett's trip there in 1984) so that Dr. Correa would show Marett what was wrong with his "replica", Dr. Correa agreed to help him by retracing the circuitry and providing him with optional circuit wiring for the HV and rectification sections, sometime in mid-1985. We do not know if Douglas Marett followed Dr. Correa's suggestions, or ever succeeded in making his CMB-3A operational, but the fact of the matter is that Mr. Douglas Marett and Dr. Correa never constructed "two similar [CMB-3A] devices together", as Mr. Marett claims. Dr. Correa began building his replica of the CMB-3A *amplifier section* - as per Reich's diagram in "The Oranur Experiment", p.259 - well before we knew Douglas Marett. Dr. Correa never built a replica of the Herbach & Rademan GM *counter* with or without Mr. Marett, let alone two replicas! And this assistance, which was provided at Mr. Marett's request, did not represent any sort of a collaboration between us to investigate Reich's Vacor phenomena, let alone the autogenous PAGD! Mr. Marett asked Dr. Correa for guidance with regard to work which he (Dr. Correa) *had already performed*.

The work which we carried out in investigating the Vacor phenomena of Wilhelm Reich dates back to 1978. And while many people were involved on and off in this project, Mr. Douglas Marett was *not* one of them. Yes, he did want to be but no, he was not.

By 1986, we had been able to reproduce the same high rates of "impulses" that Reich reported in

(sealed) Vacor tubes, which we took to very high vacua ($\sim 10^{-7}$ Torr) and which had been previously treated by exposure inside ORACs in the precise fashion described by Reich . By 1987 we had exceeded Reich's reported rates of oscillation with Vacor tubes. We had, by then, recorded rates of 100-120 Kcps, and this in the presence of virtually insignificant currents, at low voltages and very high vacua.

This discharge form- which is indisputably a fascinating phenomenon in its own right- is however *entirely different* from the autogenous (ie auto-electronic emission triggered) PAGD regime, both in waveform and in mechanism. It is obvious that, had Reich been describing the PAGD in his Vacor tubes, he would certainly not have failed to notice the pitting of the cathode, the crater-formation process, the emission of metallic jets from the cathode (a phenomenon in vacuum arcs which, by the way, was first discovered in the 1930s, and is referenced in our patents and published papers), etc, all of which are unmistakable signs of the nature of the PAGD discharge and unmistakable indicators for any plasma physicist or investigator worth his or her salt. Reich never reported these phenomena because in accordance with his protocols, *they would never occur*. Perhaps, as Mr. Marett claims to be an expert in these matters, he could enlighten us as to where in the museum or anywhere else, for that matter, there are any Reich Vacor tubes with pitted cathodes and mirrored envelopes indicating the obvious sputter and gettering processes we describe in our patents and which are characteristic of the PAGD and VADs.

When observing the PAGD regime, in darkness, one can easily trace and film the trajectory of the cathode metallic jets and their rebound from the anode. We have recorded many videos of these unmistakable events. How could Reich have missed so many critical phenomena surrounding the autogenous PAGD, if this had been in fact what he had discovered?

While we regret to disappoint those individuals who Mr. Douglas Marett has tried to convince have had the orgone motor mystery solved for them by way of our work, in point of fact, there is no identity between "orgonotic pulsation in vacuo" and the autogenous PAGD regime. They are completely different physical realities. The element connecting the two terms is not an equal sign, which would equate "orgonotic pulsation in vacuo" with the autogenous PAGD regime, but is rather a sign of difference, an inclusive disjunction. Both exist, each in its own right. By abusively identifying them, Marett, moved by spite for having been deliberately excluded from our work, has not only done injury to the Correias, which was his intention, but also to Reich, whose interests he pretends to defend. And it is a regrettable fact that one of the reasons so many people unjustly belittled and belittle Reich's work is *not* because of what Reich said or did and *not* because it does not deserve careful attention and study; but rather because they take refuge in reading instead the ill-digested material that ignorant people have taken upon themselves to write. By the time they finish reading the digests, they either believe they have understood something, like Marett does, or they are thoroughly disgusted (*et pour cause*) and are equally convinced they too, have learned *something*. There is just one problem. This understanding or rather *mis-*

understanding is based upon *superficial and irrelevant identities* or even perfect absurdities and *not upon the real differences of function*. All they have done then is simply increase their baggage of ignorance!

For this very reason, Dr. Correa wrote to Mike Carrell (17.11.96), to clarify not just our work but also that of Reich:

"I mention here for the first time these findings of ours regarding the high rates of pulsation obtained in high-vacuum Vacor tubes because they are indeed relevant to Reich's research into the natural frequencies of the aether, but *not*, I emphasize, to the PAGD regime, which cannot operate at these phenomenal rates, because of the limitations inherent to the autoelectronic emission mechanism we have identified and to the anomalous ion-acceleration mechanism involved. Indeed, the high rates of pulsation we succeeded in obtaining with Vacor tubes correspond to a plasma regime that has *nothing whatsoever to do with the PAGD regime* as we described the latter in our PAGD reactors. In producing such exceedingly high rates of pulsation the discharge has neither the same waveform, nor does it utilize autoelectronic field emission, or employ an abnormal glow discharge. The PAGD regime is a plasma regime that operates at low gas pressures, whereas the high-speed pulsations observed by Reich, and also by us, require a very high vacuum indeed. These simple facts give the full breadth of the ignorance of those Reichians and neo-Reichians- like Douglas Marett- who have understood nothing about Reich's work."

3. Let Reich stand for what he stood!

Reich's work with count rates in a *range comparable* to the PAGD rates we have observed was performed with Geiger-Muller tubes that had enclosed atmospheres of more than 10 mTorr. These are neither PAGD reactors nor Vacor tubes, by any stretch of the imagination. Nor was any auto-electronic emission present in these studies of Reich, for that matter. The *high* rates of counts Reich obtained when operating the GM tubes *within* the manufacturer's plateau region, were anomalous in that they appeared to be the result of the exposure of the GM tubes to ORAC chambers, not as the result of incoming ionizing radiation. It was as if the GM tubes Reich purchased, even though they were brand new, behaved within the GM plateau region *as if they were being overvolted* and thus *as though they were being operated* in the Constant Discharge (CD) region (see Fig. 1, from our US patent 5,416,391, also reproduced below, for the localization of this region, which is rather distinct from the AGD region). Note the critical distinction: Reich was *not* "overvolting" his GM tubes, rather the tubes were behaving *as if he had overvolted them*, and were doing so, apparently, because they had been exposed to ORAC environments and thus allowed to "soak orgone". It would be easy for someone who did not realize the difference between operating the said GM tubes in the GM plateau versus overvolting them, to wrongly criticize Reich for merely overvolting his tubes. [See ahead, how Mr. Douglas Marett has contributed, in his own work, to this misunderstanding regarding Reich's novel GM research.]

Reich was fully aware of the criticism which would arise based upon the obvious presence of secondary ionization cascades, failure of the organic quenching mechanism in the volt-ampere curve at the exit of the Geiger-Muller plateau proper, *had Reich been overvolting his GM tubes*. It is indeed common knowledge that "if the detector voltage is continuously raised through the GM plateau, ultimately a region is reached where counting will rise sharply" (W.J. Price, 1958, "Nuclear Radiation Detection", WP-AFB). However, the fact remains that the data presented by Reich in Ch. 3 of "The Oranur Experiment" nowhere gives any evidence of such overvolting of his GM tubes, which would indeed deny any validity to his observations. The anomaly Reich had found could then be simply summarized as follows: under certain conditions (exposure of GM tubes to ORAC environments), GM tubes that *were* operated at normal voltages *within* their specified plateau, appeared to behave *as if they had been overvolted*, the same is to say, as if they had prematurely entered the CD region. However, note again, there is no auto-electronic emission mechanism here at work, in this phenomenon described by Reich.

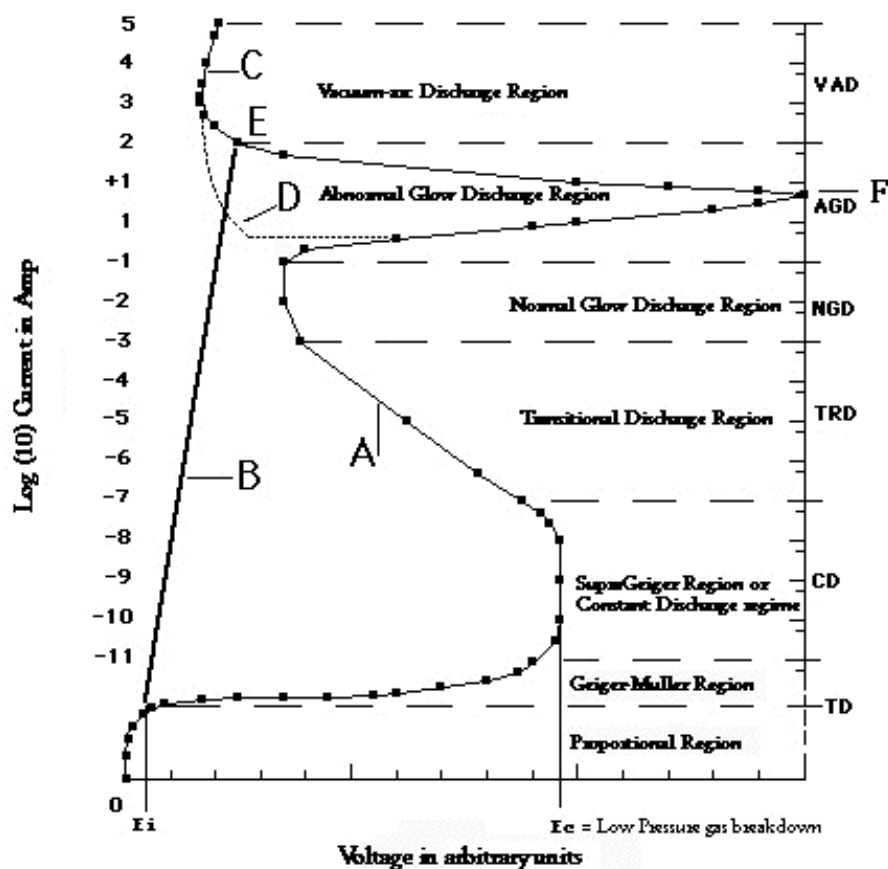


Fig. 1 - Volt-ampere characteristics of low-pressure gas electric discharge regions

After his work with GM tubes, Reich embarked on what he called the "Quest for higher CPM output" (p.235 of "The Oranur Experiment") utilizing GM counters *and* Vacor tubes. Because Reich believed that a *gas-independent* mechanism was at work *even in his experiments with GM counters*, he pursued the matter by building tubes which, in his own words, were not "gas-filled", precisely to avoid criticism that what he was observing were the secondary cascades of the CD region. He described these tubes, in his own words, as "a kind of OR [orgone] energy accumulator in the vacuum" ("The Oranur Experiment", p. 248). Here then was Reich's functional concept: if he could thermally detect an accumulation of energy inside his atmospheric ORACs, he should be able to detect a related accumulation of energy in vacuum tubes, if these tubes were structured like the ORAC. This is why he used large area plates of 64 sq.cm, given that, according to his theory of impulse action area, larger areas would sustain faster rates of linear oscillation- because they would "draw in" more "orgone energy" into his Vacor tubes. Aware as Reich was of the criticism that conventional physicists would address to his novel experiments with GM tubes, he chose a construction that resembled the ORAC to verify whether accumulation of energy was possible in a high vacuum *where gas ion effects would no longer be of concern*. The structure consisted of two parallel plates set in a vacuum, with the plates being made of aluminum. By no means does this mean that Reich invented the glass tube having planar geometry with aluminum as the electrode material, only that he adapted for his own purpose, defined in his own words above, the said structure to prove that it could be used as a Vacor (vacuum orgone accumulator) tube. That is, in summary, to prove that, *in the absence of significant gas content*, one would find yet more unimpeded oscillatory manifestations of the effect of "soaking orgone" inside a vacuum chamber treated by exposure to an ORAC.

Reich's Vacor tube is therefore defined as a sealed high vacuum tube, built to imitate an ORAC chamber, and treated by exposure to ORAC chambers until it has soaked enough "orgone" that it produces lumination and fast rates of counting in response to atmospheric conditions.

While the structure of the PAGD reactor *may* resemble the Vacor tube, it does not need to. Indeed, the PAGD reactor works with architectures that in no way resemble a Vacor tube, and does not rely in any process of passive accumulation of energy ("soaking orgone"). On the other hand, a Vacor tube must perform like an ORAC, which was Reich's intent in the design of his Vacor tubes. We have described in our patents and claims diverse geometries for PAGD reactors, including parallel plates, co-axial electrodes, surface-to-point electrodes, and rotary cathodes. Aspden, in his Energy Science Report #8 (Aspden, H (1996) "Power from Space: The Correa Invention", Sabberton Publications, Southampton, England), which was dedicated to our work, acutely pointed out that what is critical with respect to the PAGD is not "large area plates" but large cathode areas, and chose to illustrate precisely our plate-to-point geometry in his Fig.s 4 and 5. Aspden writes on page 20:

"Now to accentuate this effect, one of the features of the Correa patents involves a discharge tube having an

extended cathode structure with a relatively small anode in fairly close proximity. As indicated in Fig. 4 [of Aspden's Report], this has the effect of spreading the cathode current and so the distribution of positive ions over the area of the extended cathode, whilst the anode current is more confined to the central part of the tube."

But Mr. Douglas Marett, because he believes that the history of the vacuum tube began in 1947, and that somehow Reich has a *structural* monopoly on vacuum tubes with planar electrodes, only sees Vacor tubes everywhere he looks. For him, any vacuum tube which has two parallel aluminum plates is a Vacor tube! And for those who have swallowed Mr. Marett's specious argument that PAGD reactors must be Vacor tubes because their geometry *may* be similar, we can only quote a few basic facts pertaining to the history of vacuum tubes. These are: that cold-cathode planar diodes with large area parallel plates go back to the time of Geissler and Goldstein, even before Crookes, that aluminum plates were utilized in Aurora tubes in popular turn of the century demonstrations of glow discharges, that Righi, in 1900, was utilizing surface-to-point geometries with large area aluminum cathodes to study glow discharges, etc. For Marett, the structure defines the function, it is that reduced! (It leaves us wondering why he has still not been able to reproduce Reich's Vacor work, if it really is that simple!) For him, operational requirements are irrelevant, the regimes of plasma discharge are irrelevant, all regimes of plasma discharge are the same; in fact, all else is irrelevant but coincidental similarity of tube structure... It suffices to build a vacuum tube *like* that of Reich (never mind *any* operational parameters), for one to *have* a Vacor tube and thereby to *have seen* "the orgone"...

It was only after strenuous and repeated manipulation of his Vacor tubes inside diverse ORAC chambers that Reich succeeded in discovering what he called "organotic pulsation in vacuo". We now quote Reich:

"Theoretically, it had been assumed that the "empty space", that is, space entirely free of atoms, functions at a very high rate of pulses per time unit. How high this rate actually is, no one can tell as yet. But it must be assumed to be *very* high (...) [Reich's own emphasis]. In August 1948, measurement with an electronic 4096 Autoscaler (Tracerlab) yielded *10-12 thousand impulses per second* at 500 volts trigger action, with 4096 scale. (...) At present (1951), in certain vacor (sic) tubes, an output of 20-25 thousand counts *per second* [Reich's own emphasis] are obtainable under the proper atmospheric conditions. It was proposed to call the output of 25,000 cps a REICH-ORG (...). "The Oranur Experiment", p.266

Just try sustaining these rates of oscillation with the autogenous PAGD principles of operation (maybe with a little steel and hydrogen, you never know)! In Reich's own and concise words, Mr. Douglas Marett's disservice both to Reich's work and to ours is evidenced.

4. Summary of the differences between the Correa PAGD reactors and Reich's Vacor tubes:

1. The rates of functioning of the autogenous PAGD regime are independent of atmospheric conditions. The rates of functioning of Reich's Vacor tubes were dependent on atmospheric conditions. We quote from Reich in "Meteorological Functions in Orgone-Charged vacuum tubes", OEB, 1950, 2(4):184:

"A vacuum tube, highly orgone charged, failed to react in Maine, USA, when a major atmospheric turbulence developed some 200 miles to the West"

2. The autogenous PAGD reactors require *none* of the "orgone charging" manipulations described by Reich, just as any other *ordinary* vacuum tube does *not* require them for operation. New PAGD reactors function, if anything, more efficiently than old PAGD reactors, not less.

Reich's Vacor tubes depended, for their operation, upon a suitable accumulation of "orgone energy", this being equivalent, operationally, to being exposed in ORAC chambers for prolonged periods of time ('soak orgone', as Reich used to say). Reich is adamant on this and writes:

"New, *uncharged* vacor tubes did not react at all, gave *no* lumination, *no* reaction with the electroscope, and *no* reaction at the GM counter" (p. 253, "The Oranur Experiment", Reich's own emphasis).

And again, referring to the "orgonotic properties of lumination and high speed impulses", Reich writes:

"An ordinary vacuum, one which was not exposed to a highly charged OR energy atmosphere does *not* have these properties, or does not manifest any of these properties" (idem, p. 252, Reich's emphasis).

3. The Correa PAGD reactors are essentially low pressure gas devices that employ preferred gas fills, will work sealed or connected to a vacuum pump and depend on specific ranges of gas pressure for any set of configurations. Reich's Vacor tubes must be sealed (to accumulate "orgone"), require high vacuum and are essentially independent of gas fill.

4. The Correa reactors can only sustain autogenous pulsation by virtue of the auto-electronic 'field' emission mechanism that triggers the cycling of the abnormal glow. Reich's Vacor tubes did not employ auto-electronic 'field' emission.

5. Autogenous PAGD reactors present cathode craters, anode gettering and envelope mirroring as part and parcel of their regime of functioning identified by the Correas, and all these processes involve ionized gas and vapour flows. Reich's Vacor tubes show no signs of cathode craters, anode gettering or envelope mirroring, and nowhere does Reich mention any of these processes.

6. The Correa reactors employ an anomalous ion acceleration mechanism that exhibits cathode reaction forces and conforms to Aspden's Law of Electrodynamics, not Lorentz's. Reich's Vacor tubes did not employ abnormal cathode reaction forces, which were *first* reported in the literature

by Tandberg in 1930, who is *hardly* a "minor reference", as Douglas Marett contends in his Vortex-1 intervention, on 16.11.96:

"Obviously, the work of several individuals helped (sic) the Correa's (sic) along the way, most of whom have been referenced in their patents. These include even *minor* influences, such as *Tanberg* and *Pappas*" (*our emphasis*)

Such is his grasp of the very different phenomena at stake!

7. The Correa reactors employ at least three different geometries, planar, co-axial and cathode-surface-to-anode-point, and they are not limited to any specific geometry. In general, Reich's Vacor tubes employed a parallel plate design that imitated Reich's ORAC design. *None of these tube geometries, it must be emphasized, were invented by Reich.*

8. The Correa PAGD reactors utilize any of a series of low work-function metals as cathodes, aluminum amongst them, *because* of their auto-electronic emission characteristics. Reich's Vacor tubes only employed aluminum plates. Reich never explained why this had to be so, aside from the consideration that, in order to imitate the ORAC structure, a metallic substance should be utilized inside a dielectric structure to reflect and retain "orgone energy *in vacuo*". Reich's adoption of aluminum surely was not determined by work-function considerations for purposes of auto-electronic emission from the cathode metal, for none of the attendant physical processes are described in his writings. Aluminum plates have been employed in a wide variety of vacuum tubes for diverse plasma discharge studies, both long before and after Reich. The use of aluminum was not a "Reichian invention". In fact, aluminum is probably the oldest of the electrode materials utilized in vacuum tubes.

9. The PAGD reactors obey Paschen's law of breakdown voltage but can reduce the magnitude of the latter as a function of cathode area. The area of the anode is irrelevant. Reich's Vacor tubes contravene Paschen's law apparently as a function of the large surface of *both* plates in their effectiveness to mimic an "orgone accumulation structure".

10. The PAGD regime is essentially a low speed pulse device, the pulsation rate decreasing steadily as a function of increasing rarefaction of the reactor. Reich's Vacor tubes were designed to sustain very fast oscillations at high vacuum.

11. The PAGD reactors have a well defined volt-ampere characteristic and operate in a well known region of the volt-ampere curve of plasma discharges, as the PAGD regime has a clear-cut dependence upon the magnitude of current and a Nordheim-Fowler slope that is reciprocal to that of VADs. Reich never described the operational criterion he employed to electrically define the boundaries of the "orgonotic pulsation in vacuo". From what will follow, one can easily see that Reich considered the operation of Vacor tubes to be a function of increasing voltage and the amount of "orgone soaked" by the Vacor tubes.

12. If the Correa autogenous PAGD reactors tap the aether, this is not by virtue of any passive accumulation of the aether, but by virtue of the phenomenon which Dr. Harold Aspden describes as Aether Spin, and which involves anomalous cathode reaction forces present in the auto-electronic emission triggered PAGD and in externally interrupted VADs. Conversely, Reich's Vacor tubes were devices designed to trap the aether by exposure to what Reich related as environments with "high orgonotic content".

As Mike Carrell has appropriately written in his Vortex-1 intervention of 22.11.96:

"The similarities to Reich's devices cited by Marett are coincidences of structure, not of function, and are superficial".

We have amply proven this point. At the very least, Mr. Douglas Marett owes us a public apology. IMHOs aside, he also owes one to Reich.

III. How everyone, even the Virgin Mary, also discovered the PAGD by accident

"Pasolini was killed by a swindler. We can't all die in bed, like Franco. (...) The assassin, Pelosi, wasn't used by fascism. He was the voluntary instrument of racism and the refusal of difference, the day-to-day non-politicized kind of fascism".

G. Hocquenghem, "We all can't die in bed", 1976

1. The edict of Inquisition enunciated by Torquemada Marett against the Correas.

Mr. Douglas Marett has taken it upon himself to step stridently out from the shadows and to publicly point an Inquisitorial finger at our long, hard years of original work, demanding that we confess our nonexistent sins of theft in light of his absurd allegations; that we acknowledge our "guilt" before his imaginary tribunal. Torquemada would have demanded no less. Facts, knowledge and understanding have always been an abhorrent complication for the inquisitorial mind; mere bothersome details to be exorcised.

The repository of the accusations regarding "structural similarities" was made in Marett's 16.11.96 intervention in Vortex-I. The first two points he addresses are based on *mere non-essential structural identities*, and they are, we must say, the moron's moral equivalent to mistaking a fridge for an oven because both are built as metal boxes. As Reich did not invent planar or planar curved electrodes, the issue is a moot one. Furthermore, if structural considerations were a problem with our "Pulse generator" patent (US patent # 5,502,354), *the US Patent Office would have surely denied it over the prior art of Manuel* (US patent #3, 471,316, Oct. 7, 1969) who used large area aluminum or tin plates in his PAGD chamber. In the Manuel invention, however, the PAGD was externally formed and thus did not employ auto-electronic emission: in other words, it was *not autogenously triggered by auto-electronic emission!* Did Manuel steal Reich's Vacor tube design too, Mr. Torquemada Marett? If so, the Correas are decidedly in good company...

Marett's second point is also specious: first there is nothing about our surface areas that conforms to any "log2" (sic) numbers. This is only more Marett ignorance on the podium. That we used large cathode areas which *were and were not* multiples of 4 is solely a function of the fact that by the time we discovered large cathode areas sustained faster PAGD pulsation rates and decreased the breakdown voltage, we had already learned how to build large area tubes both for Vacor and X-ray studies. So we stuck at times to numbers that were, like Reich's numbers, exponents of 4. There is nothing mystical, essential or mysterious about this, and the PAGD will work with any other large areas just as well. So, this claim of Marett's is rather irrelevant to say the least (no, we are not Pythagoreans, the number 4 is not a magical number for plasma discharges and we have not patented it!).

The next accusation which Marett uses to "prove" his case that we have absconded with Reich's work, regards the processing of vacua protocol on page 9 of our US patent #5,502,354, which he notes "is very similar to the protocol used by Reich". The protocol he refers to, was reproduced by Reich on page 251 of "The Oranur Experiment". But Marett is deeply wrong - the protocol in question *was not written by Reich* and Reich carefully notes this (giving credit where credit is due), by writing: "Description of the manufacture of the vacuum tubes, as given by the manufacturer". So, the fact that Marett raises this is laughable: of course we availed ourselves of this description, and of many others schooled in the art of glasswork as well- from Barr, Barbour, Kohl, Gewartoski & Watson, Spangenberg, etc, in detailing at great length the processing and cleaning of the tube assembly, an art that we learned over nearly two decades. However, all these references are the stock and trade and common general knowledge of everyone involved in the manufacture of vacuum tubes. Indeed, this part of the patent text was only included in order to assist others in the reproduction of our work, call it a materials and methods section, something which is sorely missing in most patents.

We come at last to the fifth claim of Marett in his 16.11.96 intervention in Vortex-1 which reads as follows:

"The claims of US patent #5,502,354" read on prior art as found in Reich's article ["The Orgone Charged Vacuum Tubes", which is really chapter 4 of "The Oranur Experiment" - *our note*]. The only difference is that the Correas have added a scientific explanation in the claims. The end result is the same [!], since both Reich's tubes and those of Correas sustain PAGD emissions".

Now, while from the point of view of the plasma physicist, this statement is undoubtedly hilarious as a scientific proposition, it is, from a legal and patenting point of view, a very, very serious allegation indeed. Mr. Douglas Marett, in one fell swoop, is asserting that 1) Reich's painstaking descriptions of his research were not scientific, 2) that our invention is nothing more than a carbon copy of Reich's work with "a scientific explanation" tacked onto it, and 3) that we have deliberately misled the patent office at the time of application. Marett's statement is gratuitous, slanderous and entirely without merit. It is also illustrative of his deep ignorance (his own *lack* of scientific understanding) with regard to the two very different physical phenomena at work. Nowhere has Reich ever described the PAGD regime *in any of its attributes*. Mr. Douglas Marett cannot substantiate *in any way, shape or form* that Reich sustained autogenous pulsed abnormal glow discharges in his tubes, any more than he can substantiate that Righi or Manuel did. If one can utilize vacuum tubes that look like Manuel's tubes or Vacor tubes, or like GM tubes, or like Righi's tubes, or even odd fluorescent lamps, etc, to produce autogenous PAGDs or interrupted VADs, this does not mean that Manuel, Reich, Geiger and Muller, Righi or the inventors of fluorescent lamps were sustaining autogenous PAGDs or studying auto-electronic 'field' emissions!!!

The fact of the matter is that Reich's Vacor tube art, *unlike* Manuel's, is entirely irrelevant to the autogenous PAGD and IVAD art we teach in our patents. Let us make ourselves very clear: we consider Mr. Douglas Marett's contentions to be libelous and we intend to hold him responsible for any resulting damages which may ensue to our business interests or our reputation as a result of his fatuous allegations.

As "evidence" for Reich having "witnessed" the PAGD, in a vituperous and unsolicited fax transmittal from Mr. Douglas Marett to our offices (23.11.96), Mr. Douglas Marett provides two elements: The first is anecdotal and the second is a pure fabrication.

Marett provides anecdotal support for his argument by citing Reich's "The Oranur Experiment", p. 249 (a reference Marett manages to muddle, and which was part of a reprint from Reich's "Further Characteristics of Vacor Lumination", OEB, 1949). Let us observe Reich's text *in full*. Reich wrote:

"The following characteristics of the function of lumination *in vacuo* have been secured in *one special vacor tube*: [*our emphasis*]:

"1. With the two electrodes some 15 cm. apart (surface area ca. 2 cm²), the bluish lumination begins at *both* electrodes and extends from both ends toward each other as the voltage increased. The two luminating fields make contact with each other; then the field which is excited by the *negative* electric pole extends further; the other field, which depends on the *positive* pole, *recedes*, until it disappears altogether. (..) After disappearance of the lumination of the anode, and with further increase of the voltage to about 800 to 1000 volts, the whole tube lumines strongly with a bluish-violet colour. With further increase of voltage, the lumination becomes brighter, until it shows a *whitish* colour like daylight." [Reich's emphasis throughout]

So far, Reich is merely describing precisely what is observed for *either* a normal or an abnormal glow discharge in an Aurora tube, as a function of *increasing voltage*. Demonstrations such as this go back to the excellent work of Crookes in the XIX century. Then Reich proceeds:

"2. (...) *Discharges* occur in the form of very bright, whitish, rapid *flashes* [*our emphasis*] between the two electrodes at intervals depending on the degree of charge."

This last excerpt is the passage Marett quotes out of context as his "proof" that Reich was viewing the PAGD. Now, as Marett has no idea of exactly what circuit was employed by Reich for this demonstration, as Reich *never* provided it, what was occurring inside the tube in step 2 really is anyone's *guess*. The description could *encompass everything and anything*: from a Townsend avalanche, a capacitative strobotron flash, a normal glow flash, an externally pulsed PAGD, a photoelectric flash, the bright channel of a VAD or even of an emission triggered PAGD (Why not?). How does Marett propose to explain *which* flash it was? All of the above? None of above?

What makes it very *unlikely* that it was either the autogenous PAGD or a VAD are not only the

many obvious differences of operation we have already described, but equally, the fact that nowhere does Reich mention the dependence of these "flashes" upon increasing input current (*not* increasing voltage) which is the real common element to the autogenous PAGD and the VAD, and one of the critical elements of the volt-ampere curve characteristic of the PAGD. Are we to assume that Reich was unaware of vacuum arc discharges by 1948 that he so disregarded the importance of magnitude of current in the definition of what was so specific to *his* "flashes"?

Furthermore, this special tube with a large gap of 15 cm, that Reich utilized for these experiments was none other than the sealed Crookes' radiometer evacuated to 0.0005 Torr, which can be seen with this "flash" occurring, in the front colour plate of Reich's book "Aether, God and Devil" published by Farrar, Straus & Giroux, and also on the front of "The Oranur Experiment". Careful examination of the plate will reveal that the "whitish discharge" in question is a flashed glow that *has no characteristic PAGD inverted cone over the cathode surface and no characteristic cathode plasma ball present in emission discharges*. The "special tube" in question is not even a Vacor tube, by Reich's very own definition, for its plate areas are solely what Crookes used, ie 2 sq.cm. Yet Reich refers to it as a special kind of Vacor tube. Why? Because (1) the tube had been sealed at very high vacuum by the manufacturer and (2) had been treated, by Reich, inside an ORAC chamber before it could supposedly display the "special" radiometric effect first reported by Crookes. These then were the two critical elements that, for Reich, made this tube into a Vacor tube. The tube in question *is in fact an exact replica of Crookes radiometer* drawn and described on p.16 of William Crookes' 1879 paper and lecture "On Radiant Matter" (see Fig. 2 below). There Crookes writes:

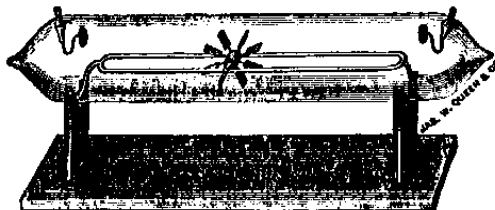
"At each end of the tube, and rather above the centre, is an aluminium pole, so that whichever pole is made negative the stream of Radiant Matter darts from it along the tube, and, striking the upper vanes of the little-paddle wheel, causes it to turn around and travel along the railway", [to the other aluminium pole, the anode].

Are we to conclude therefore, that Crookes too discovered "orgonotic pulsation *in vacuo*"? Or that Crookes also discovered *ipso facto* the autogenous PAGD? Are we to also conclude that Reich stole Crookes work, nowhere providing him his due credit? By Mr. Marett's simplistic logic, it would seem so. In fact, it would seem that anyone who ever saw a bright light inside a vacuum tube also simultaneously discovered the PAGD and the "orgone". How credulous can one be? If the PAGD is so well described and apparent in Reich's work, and Crookes already knew of it too in the nineteenth century, what took Mr. Douglas Marett and all the other self-styled organomists that have unabashedly investigated Reich's work for half a century so long to reproduce it? Mr. Douglas Marett's interrogation in his Letter to us of 23.11.96, is therefore a perfectly ridiculous one: "Were you [Paulo Correa] aware of Reich's work on the PAGD?". This sounds to us like something straight out of Kafka's Trial. Clearly not, your Honor, or we would not have bothered to discover it!

Radiant Matter exerts strong mechanical action where it strikes.

We have seen, from the sharpness of the molecular shadows, that Radiant Matter is arrested by solid matter placed in its path. If this solid body is easily moved, the impact of the molecules will reveal itself in strong mechanical action. Mr. Gimmingham has constructed for me an ingenious piece of apparatus, which, when placed in the electric lantern, will render this mechanical action visible to all present. It consists of a highly-exhausted glass tube (Fig. 11), having a little glass railway run-

FIG. 11.



ning along it from one end to the other. The axle of a small wheel revolves on the rails, the spokes of the wheel carrying wide mica paddles. At each end of the tube, and rather above the centre, is an aluminium pole, so that whichever pole is made negative the stream of Radiant Matter darts from it along the tube, and, striking the upper vanes of the little paddle-wheel, causes it to turn round and travel along the railway. By reversing the poles I can arrest the wheel and send it the reverse way, and if I gently incline the tube the force of impact is observed to be sufficient even to drive the wheel up-hill.

Fig. 2. Excerpt from W. Crooke's 1879 Lecture "On Radiant Matter"

If we are to follow on using Marett's primary "logic" we might even be led to believe that Reich had a monopoly on Pyrex vacuum tubes... He then adds in his unsolicited fax transmittal of 23.11.96 -

"Since we are both aware that Reich's tubes could and did sustain PAGD pulses, and obviously were driven by a sufficient power supply, your entire claims in #5,502,354 read on prior art of Reich. It does not matter that Reich's tubes operated at a higher vacuum (sic) level ; irregardless (sic) of these conditions he did still witness PAGD phenomenon (sic), and we must assume that his experimental conditions were sufficient". "

It does not matter to Marett that the phenomena described by Reich could only be produced at much higher vacuum levels and bore no relation to the PAGD regime in their description; no, regardless of all this, Reich did still witness the autogenous PAGD phenomenon, according to Mr. Douglas Marett, and *we must therefore assume* that his experimental conditions (nowhere described and whatever they were!) "were sufficient"! "It does not matter" that Reich's tubes required a high-vacuum. "It does not matter" that they needed long term exposure inside the ORAC. "It does not matter" that Reich nowhere reports the unmistakable signs of the PAGD, "it does not matter" that rates of oscillation he reports are unsustainable in the PAGD regime. "It does not matter", "it does not matter". For Marett, the material conditions are mere words, only

words, with no significance whatsoever. And besides, as any flash in vacuum is similar to any other flash to him, it is all Vacor = PAGD everywhere. The fact that Reich clearly defined his experiments in his publications and that these descriptions in no way conform to those which define the PAGD is a matter of total irrelevance to him. His logic is somewhat more reduced: "*whatever the Correas are doing must have been what Reich did so Reich must have discovered the PAGD*", this is the illegitimate syllogism that Marett shamelessly proffers to defend.

Rochefoucauld was right: "vanity makes us do more things against our taste than Reason does" ("Maxims", 1678). ...And when Douglas Marett asserts he is motivated by his concern for "scientific ethics", we know that, in fact, even as Mocenigo loved Bruno, or Pelosi loved Pasolini or Mills loved Reich or Solanis loved Warhol- Douglas Marett is also acting out of love- for us and for Reich. It is a dark and poisonous flower indeed.

While we do owe the inspiration for certain work (yet to be published) we have pursued- which is entirely unrelated to the PAGD discovery- to Reich, what we do not owe him *for a fact* is the discovery of the PAGD regime and the entire associated power technology. That, come what may, will always stand as the work we have created. It is not Dr. Reich's. If we are to give credit to anyone who predicted anomalous energy associated with the reaction forces in arc discharges, surely that someone is Dr. H. Aspden. And that is indeed what we have done.

The second line of evidence Marett claims is an insidious one, to say the very least. Here he introduces a series of allegations that have progressed in amplitude, from communication to communication. In his Home Page, Mr. Douglas Marett writes:

"This pulse [autogenous PAGD] phenomenon is exactly the same as can be seen in the Reich motor video shown at the Wilhelm Reich museum."

Regarding this absurd allegation, Dr. Correa wrote to Mike Carrell, in response:

"If the PAGD regime is what Reich discovered as "Orgone pulsation in a vacuum", or as the source of his motor force, it seems to us that the onus of proof is on those who claim such nonsense. We have never seen a shred of evidence to suggest such. If there is a Reich Orgone motor video at the W. Reich Museum that "can prove the matter", you may be sure that it is not the video that Ms. Higgins allows the public to watch. We have been told, in this respect, that Douglas Marett succeeded a few years back in surreptitiously obtaining a copy of a video of Reich's Vacor work from Ms Higgins' private collection - which allegedly shows 'Reich's motor force' (whatever that is). If true, maybe it is time that these people, Mr. Marett and Ms. Higgins, cease capitalizing on suppressed information, cease sequestering Reich's work and come clean with it, if such exists."

However Marett goes a step further: he now authors an unabated fantasy regarding this famous "Reich video" on his unsolicited fax transmittal to our offices, on 23.11.96: in this communication he has us, sometime in October 1990, going to Orgonon with an invented person

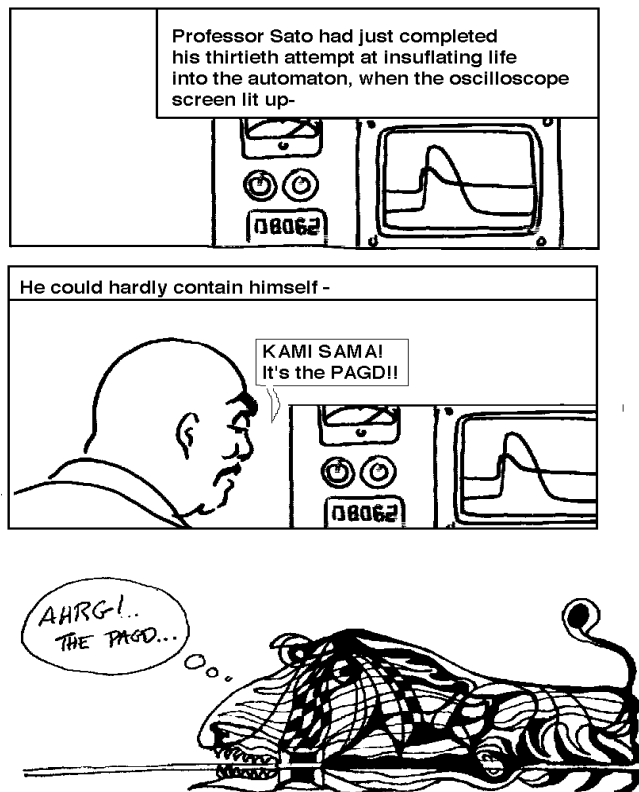
we have never met (called "Lui") and watching this video

"which had information on it which (sic) confirmed that Reich had discovered the same principle"!!

Then he adds:

"Since this video is a longer version of the edited version including the PAGD footage, you *must* have viewed this repeatedly, and *I must assume* that this is what you were referring (sic) to" (*the emphasis is ours*).

More of Marett's gratuitous assumptions based on pure fabrication...Yet here, he provides us clues regarding his serpent's egg. For there is indeed a crude analytical logic to his devious allegations. Though he was not involved, Douglas Marett is well aware that in 1980, we, together with his brother Dave, contacted Mary Higgins in New York (in person) to request permission to access the Reich archives in Boston. He is equally aware that while Ms. Higgins had enthusiastically accepted our proposal to help resolve many of the outstanding scientific questions regarding Reich's work and consented to allow us to search the archives, her permission had been contingent on Dr. Chester Raphael's agreement. To our absolute astonishment, Dr. Raphael chose to veto this permission unless we were to agree to prior "psychoanalysis", conducted by him! Naturally, we declined. And as a result, we were therefore never, at any time, granted access to any of Dr. Reich's material which is not made generally available to the public. Now Marett clearly states in his fax transmittal of 23.11.96 that Ms. Mary Higgins was in possession of a "film [that] was not severely edited like the one for the museum consumption, and that it was over 20 minutes long, in colour". Given the fact that Ms. Higgins has been so secretive and protective about the film's existence, and that Marett's copy was surreptitiously obtained by him without Ms. Higgins permission (at a time when he had been apparently entrusted by her with extraordinary access to the museum contents), it goes without saying that we never, at any time, viewed it- let alone "repeatedly" and with an imaginary colleague. We had recently learned however that this film does in fact exist, as Marett's brother Dave was able to view it at Douglas' home. We also understand, however, that the conclusions taken from it by Douglas Marett are not warranted by the said film.



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2. One more travesty of Reich's work: the pseudo-GM effect "of the Orgone" reported in Mr. Douglas Marett's "The Orgone Motor Mystery- Solved!" Internet posting.

Let us stop for a moment and examine the "science" of Mr. Douglas Marett, the "professional researcher/inventor", who chooses to so grossly misrepresent our many years of original work. See, for example in his article "The Orgone Motor Mystery- Solved!" which may be found on his Home Page for his "Another Orgone Research Laboratory" on the Internet, and which PORE (the Public Organomic Research Exchange) has decided, in violation of its own stated policy, to post at its web site without having consulted us. We encourage the reader to examine Marett's "replication" of Reich's studies with GM counters which we have discussed above. (But do it quickly, for we are sure he will be furiously modifying his text in light of what we are about to say.)

He presents in this article, three cursory diagrams (Fig.s 1 to 3) which are identical to the diagrams shown by Wilhem Reich in "The Oranur Experiment". For his experiments, Marett utilized a GM tube which he repeatedly refers to as TGH N204. In fact, the GM tube is the

TGM N204 detector (Waltham, MA), identical to *three* GM tubes purchased by Dr. Correa in 1985. We still have the specifications for the device on file, and they read: "Background: <5 CPM; GM Plateau length: **850-1000V**; Plateau slope: <8%/100V; Deadtime: 150microsec; Gas filling: Neon and Halogen". This GM tube also has a very delicate and large mica window.

Now, what do we read in Mr. Douglas Marett's text?

"Before charging [Marett means, before placing the GM tube inside an ORAC], it was determined that the TGH (sic) N204 tube used counted at 10-20 CPM at 1,000VDC applied, and this amount increased by no more than 50% up to **1,500VDC**. The maximum count on the first day (Feb. 23rd, 1992) was 23.4 CPM at **1400 VDC**".

So, in conducting his experiment, Marett immediately takes his GM detector up to *five hundred volts above its Geiger-Muller plateau region of operation* ! Price, in the above quoted work (p.121) precisely describes how, if the detector voltage is raised beyond the plateau GM region of intended operation, a region will be reached where counting will rise *sharply and suddenly*. One certainly does not need to place a GM counter inside an "orgone accumulator" in order to observe this clearcut overvolting phenomenon that suddenly sets in! As we have discussed already, the region at stake is usually referred to as the Supra-Geiger region or the constant discharge (CD) region , or equally, as the self-sustaining region. This region can be seen directly in Fig. 1 of two of our US patents. The reader should note that the CD region is quite distinct from the AGD region where pulsed abnormal glow discharges can be made to cycle externally or autogenously. The sustained discharges in the CD region do not involve any auto-electronic emission and are due to secondary avalanches that involve photoelectrons.

Following on from this most obvious overvolting of his GM tube, Mr. Marett proceeds with his demonstration:

"However, after only one day of charging in the ORAC, (Fig. 2) the tube began to exhibit anomalous behaviour [*small wonder!!- our note!*]. When the same curve was repeated, and the tube was sitting at **1400VDC** and the count was being taken, the CMB-3A *suddenly* came alive with counts (...) [*our emphasis*]. The tube continued to produce rapid rotation as low as **1300VDC**, in the range of 1000-3700CPM. The classic interpretation of this behaviour is that the tube is being driven above its rated threshold value and that this causes instabilities [!] and auto-avalanching of the tube."

Yet clearly, the classic interpretation, in this context, is absolutely applicable! So how then does Mr. Douglas Marett propose to dispose of his glaring overvolting of GM tubes in the CD region, which clearly in no way proves *anything whatsoever about any effect of the ORAC on GM tubes operated within their plateau voltages?* Instead of repeating the experiment time and time again, with the GM tube inside and outside the ORAC, for the same time periods, *and* operating it inside the GM region *without overvolting the detector*, to determine whether the ORAC had anything to do with the detector's runaway counts (as Reich described), Marett instead gingerly

moves on and declares that

"the pulses coming from the [GM] tube were generated at two distinct quantum levels [!!!], the first at around 500Hz (...) and the second at around 2500Hz and higher thresholds (sic)(...) depending on meteorological conditions, in particular the solar radio flux (...)"

Then he adds some further gibberish:

"Also, the frequency of these quantum levels also varied somewhat depending on the same conditions. (...)"

Referring to his graph of p.3, he continues:

"As can be seen from the figure, the threshold voltage for these pulsations (?) followed almost exactly the monthly variation in the sunspot activity. (...) Thus, this phenomenon is not just random artifactual pulsation, but is actually measuring or responding to energy fluctuations originating millions of miles away."

There you have it ladies and gentlemen. The reason why overvolted GM tubes enter into the CD region is a function of solar flux! It should be reported to the Academy of Sciences somewhere! In his text, Marett claims that the data he shows for the two unlabeled curves of the overvolted N204 detector correspond to the *monthly* variation in solar radio flux and sunspot number. Yet what his graph actually depicts is a *weekly trend* ! (Are we to suppose these curves are meant to illustrate the different results obtained inside versus outside the ORAC with the *same* detector, *or* does it instead represent his two fabled "quantum pulsation levels"? Who's to say?...). And while these graphs are made to appear to correlate with the curve for "solar flux", *increasing* as the latter *decreases*, to make matters worse, Marett displays the right ordinate in an inverted scale! So, we must conclude that as the "solar flux" decreases, the voltage required (*for what?*, Marett never tells us...is it for transition into one or the other, or any other, "quantum pulsation level"?) *increases*... We suggest what is obvious: that it is simply the voltage required for gas breakdown of the overvolted GM detector, which results in its entry into the CD region, any "quantum pulsations" aside!

Marett does not even tell us what solar flux he is referring to, nor which is the source and location for his flux data. If it is the 10.7 cm solar radio flux, NOAA's data for this period decreased between ~240 and ~153 during the days cited by Marett (27th February to 5th of March, 1992) But this is *not* what is shown in Marett's graph. Here, his values indicate a decrease from ~280 to ~233 on the right ordinate. But maybe the data was taken at a different site, despite the large discrepancies. Similarly, Marett's numbers cannot be for sunspot activity because, for the same dates in question, sunspot number actually decreased from ~190 to ~65 according to data publicly available from the NOAA. So, it's mysterious! Assuming however that the data are for the 10.7 cm solar radio flux, it is worth noting that, as sunspot activity was being considered by Marett to be a determinant parameter in this experiment, it is precisely on the 6th of March, when Marett's

graph expires, that both sunspot activity and radio flux reversed their trend and began their ascent, the former to ~140 and the latter to ~180. What happened then to the overvolted TGM tube during this period? Unfortunately, the reader will be left to wonder, for Marett seems to have lost interest by this time.

So why has Mr. Douglas Marett conducted these "experiments" and why has he reported such "results"? Because Wilhelm Reich wrote ("The Oranur Experiment", p. 250):

"Should it be true that the vacor phenomena were due to sunspot activity in 1947, we would have to wait until the next sunspot cycle occurs to be sure of this".

So, "to advance the cause of Dr. Reich's work" Mr. Douglas Marett obligingly identifies the Supra-Geiger region in an overvolted GM detector with the Vacor phenomena of Reich and links this to supposed sunspot activity. We imagine Dr. Reich would be thrilled with this parody of replication. He would undoubtedly even congratulate Marett in person and offer him a medal. But Marett had better make up his mind: what exactly is Vacor pulsation? Is it the CD region or the autogenous PAGD? Or has he even grasped the difference? If Vacor pulsation is *both and everything else in between*, a reader might well conclude it is *nothing*.

Marett has indeed shown nothing short of a gross caricature of Reich's work. Not an iota of evidence to demonstrate the effect of "orgone soaking" in GM tubes that were not overvolted, or for that matter overvolted, and not an iota of evidence to demonstrate any effect of solar flux. What Marett has successfully (re)discovered is purely and simply the CD region without, we might add, giving credit to Geiger and to Muller! Indeed, what prevents us from supposing that the reason why Marett's plateau steadily increased over the eight days of the experiments is rather simply explained by the getting of the CD discharge impacting gas fill and increasing the breakdown voltage? Anyone can produce this same effect without any ORAC being required, for the same period of time, and while the sunspot activity number or the solar radio flux are *decreasing or increasing*.

Now note that in the context of the previous quotation from Reich, Reich was puzzled as to why he could not get vacuum breakdown in his Vacor tubes, "since the end of December, 1947". Reich adds:

"All through 1948, the 0.5 micron pressure vacuum tubes remained silent or showed only minimal orgonotic effects".

Further down in the same text, Reich writes:

"Another interpretation [alternative to the hypothesis that "vacor phenomena were due to sunspot activity"] would have to be devised to demonstrate the phenomena [lumination and fast counting rates] at all times".

In our own studies of the vacuum breakdown in Vacor tubes built to Reich's specifications, as well as in other vacuum tubes, including GM tubes we have found that, in fact, *there is no correlation between vacuum breakdown and sunspot activity in any of these tubes*, and this is shown in Fig. 2, for a sealed Vacor tube after it was exposed for several months inside an ORAC. It is apparent that, while the sunspot activity (A index), as well as the solar radio flux increased over the ten days of August/September 1989, the breakdown voltage fluctuated independently of it. There is *no correlation between the two*. There are however close atmospheric correlations we have not shown, but that is another story.

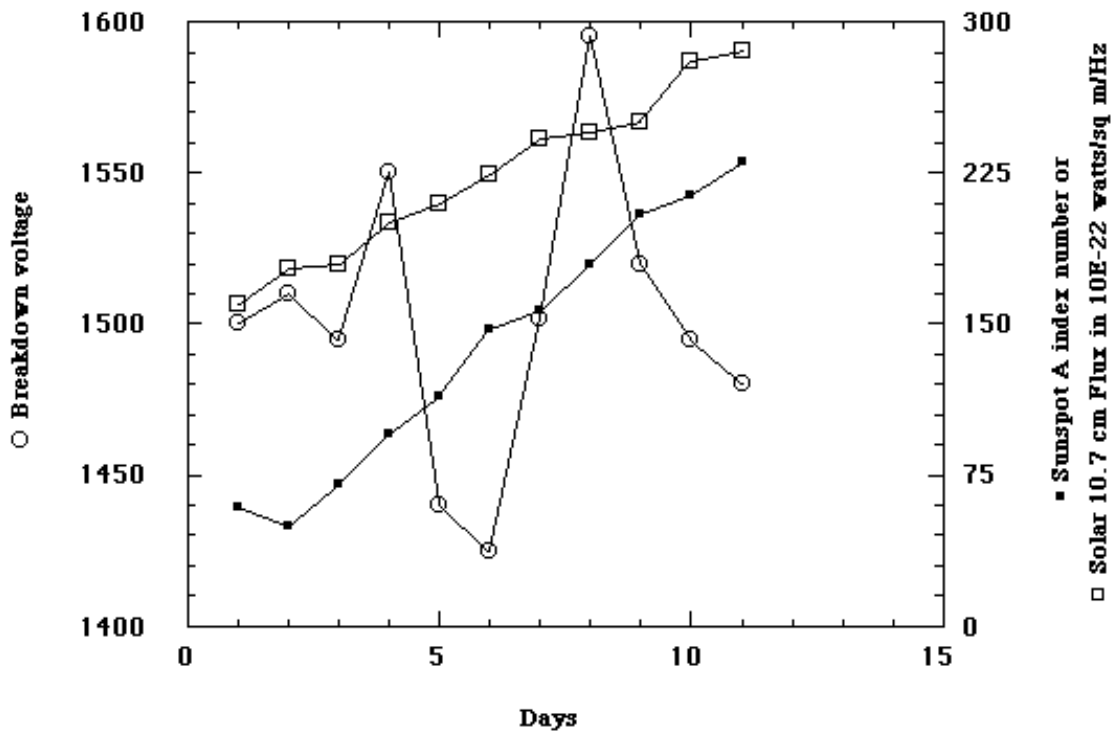


Fig. 3. Vacuum breakdown voltage for a Vacor tube pretreated by exposure inside ORAC is independent from sunspot activity or solar 10.7 cm radio flux.

IV. The Orgone Motor: a mystery that will remain UNresolved

"So why do men with so much hate
destroy what they cannot create
while we all stand by?"

Allan Parsons On Air, 1996

1. To each his own

The claim that the "Orgone Motor Mystery" was resolved by the Correas is by far the most amusing part of all of Marett's gratuitous allegations. He begins his paper by stating:

"In this article [Reich's "The Geiger Muller Effect of Cosmic Orgone Energy (1947), Ch. 3 of "The Oranur experiment"], Reich described how geiger-muller (sic) tubes exposed to orgone would exhibit unusual phenomenon (sic), such as abnormally high counts of radiation on the impulse recorder (...). Reich experimented with this phenomenon for some time, feeling that he had witnessed "a motor force in the orgone", and that if he could reduce the material arrangements, he may be able to develop a suitable transduction apparatus."

Before we proceed, a few comments are in order, even if we might repeat ourselves. The reader will have already noticed that, from the preceding criticism of Marett's overvolting of the GM tube he employed, there can hardly be room to conclude as he claims that this phenomenon (singular) indicates "abnormally high counts of radiation". Indeed, the Supra-Geiger region and the counts obtained therein are quite independent of ionizing radiation, and, by themselves, cannot serve as an indicator of *any* form of radiation. Furthermore, given that Reich did *not* overvolt his GM tubes, Marett has solely provided grounds for any serious physicist (conventional or otherwise) to criticize both Marett and Reich, once Reich's work has been so caricaturally reduced. However, this is Marett's mistake, not Reich's. Indeed, Reich's point in Ch.3 of the cited work, *was that GM tubes operated within the GM plateau would present runaway counting if they had been exposed to ORAC environments for a period of time.* The implication was that by "soaking orgone", these tubes presented higher counts than would be expected, when operated under normal conditions, due to the quantum of "massfree" energy they had retained inside their gas enclosure. It is Marett that reduces Reich's GM anomaly to the well know phenomenon of sudden and fast counting in the CD region. Reich was not discussing the transition of GM tubes into the CD region, this is Marett's doing. Reich was rather examining why brand new tubes which had been exposed to charging by ORACs presented characteristics of the CD region *when operated at normal plateau voltages, not when overvolted.*

Marett continues:

"Reich experimented with new tube arrangements which involved pyrex (sic) tubes with rarified (sic) inert gases, which he named VACOR (Vacuum Orgone) tubes (...) These tubes generated large numbers of pulses and high rates of impulse recorder rotation, but still required the geiger muller (sic) counter for the transduction of the impulses."

In his attempt to bolster his argument that Vacor = PAGD, Marett now claims that Reich experimented with rarefied inert gases! In fact, Reich *never* experimented with *any* gases at all, nor did he perform any pumpdown system studies of any type, nor did he manufacture his own tubes. His Vacor tubes were produced, evacuated and sealed by tube manufacturer(s). Gentlemen, read Reich's work! The phenomenon of the high counting rates in GM tubes could only be resolved, in Reich's mind, by utilization of high vacuum tubes, or of tubes *where, in his conditions of operation, the atomic nature of the gas substrate was no longer significant*. To lead the reader to believe otherwise, as Marett does, is a tremendous distortion of Reich's work. Moreover, the manufacturer that produced Reich's Vacor tubes utilized Argon only, a single monoatomic inert gas, not "inert gases", solely because utilization of argon was the common commercial procedure for processing vacuum tubes at the time. The Argon was evacuated by the manufacturer *before* the tubes were vacuum sealed and *before* Reich would begin his experiments. Reich never, in any of his writings, experimented with or attributed *any* significance to argon (or any other gas) in the functioning of his Vacor tubes, with respect to all the phenomena he associated under the umbrella expression "Vacor phenomena". Quite the contrary.

And so, in furtherance of his own specious argument, Marett leads the reader to imagine that Reich's "feeling" that he needed to "reduce the material arrangements" is what led him to the Vacor tubes. This is an imaginary first step in Marett's story, the second step being marked in Marett's text by the sentence - "[Reich] still required the geiger muller (sic) counter for the transduction of the impulses". So why does Marett lead his readers in this direction? Simply because his aim is to use the patented Correa electromechanical PAGD/VAD inverter applications in order to *redefine* Reich's "orgone motor", thereby hoping to "prove they are one and the same" (decidedly a mania). What one ends up with is a hopeless confusion of both Reich's work and our own. But never mind, Douglas Marett must trust that few readers will know enough of either to sort the entire mess out.

The next stepping stone in Marett's demonstration is his introduction of Reich's Western Electric motors KS-9154 and KS-8624. He writes on this:

"I am now very familiar with the nature of these motors and the relevance to Reich's experiment. These motors are what is known as capacitor-run eddy current motors. They contain solid aluminum or copper rotors and are driven by the eddy currents induced in the rotor (...). They are somewhat similar to hystersis (sic) and other types of induction motors (...)."

Marett *should indeed be very familiar* with those motors of Reich, by now. Back in 1979, Gary Mann told Dr. Correa, Alexandra Correa and Prof. E. Mann, in Toronto, that he had disassembled the KS-9154 and had found it had a solid aluminum rotor. Thus it was apparent that it could only be an AC eddy-current motor. (Incidentally, not all eddy-current motors have solid rotors, drag-cup motors having hollow metal rotors.) Gary Mann also noted that there was no continuity between the coils, and speculated that the stator was probably driven "unipolarly". It was we who relayed this information to Douglas Marett within the first year of our acquaintance, and over the years it was often discussed. In the wake of a severe disagreement between Marett and ourselves, in August of 1984, regarding his consistent refusal to observe sterile procedures during an attempt to reproduce some of Reich's work on biogenesis at our biology laboratory, Marett went, by himself, to Orgonon. There he managed to take apart both of Reich's Western Electric motors, photograph them, and measure the resistance between the four leads, which was infinite in all cases. This he told us in mid 1985, and offered us copies of his photographs of the same, at the time he asked for help to solve the impasse with his CMB-3A.

But, it must be said, that Marett is none too sure that these motors could not be hysteresis motors for, in his rush to go to Orgonon, he forgot to pack a magnet. Hence, he resorts to another 'Dougspeak' identification when he writes "they are somewhat (?) similar to hystersis (sic) motors and other induction motors", in order to cover all the bases. Anyway, "somehow" all motors look "somewhat" the same...

Then Marett describes how he connected one such eddy current motor (he fails to provide the specifications and manufacturer) to the output of his CMB-3A replica, the input coming from the probe of a Vacor tube, placed between the plate electrodes sustaining an applied 1-2 kV DC. The reader is not provided with any details regarding the input current to Marett's tube, nor about the pressure at which these experiments were conducted. What does Marett find?

He finds that he can get the motor to turn, and describes the "hickups" the motor goes through as "quantum pulsations". In his Fig. 5, he then jumps to the conclusion that the "Reich/Washington (sic) final motor arrangements" employed a "modified CMB-3A using thyatron and amplifier only (sic)". On what basis he has arrived at these two conclusions regarding Reich's work, we are unable to fathom. but his "explanation" comes on p. 5:

"In the Kawarthas, I also was able to verify that atmospheric type signals could be (...) transmitted to the grid of the CMB3A (sic) in sufficient intensity to cause motor rotation."

Then immediately follows a complete non-sequitur:

"It is believed [!!!!] that this was the basis for Reich and Washington's experiments as shown diagrammatically in Figure 5. Reich was very much interested in eliminating the CMB3A (sic) from the experiment, and designed with

Washington a simplified counter using the 884 thyatron, a secondary amplifier and a variac supply, as can be seen in the museum video. (...) This is most likely as far as Reich got with the motor work before Washington disappeared."

His sources then are "it is believed", and once again, a Reich "museum" video. As discussed earlier, we have never had the pleasure of seeing such video, so we are unable to comment. However, in this regard, David has recently told us that he does not believe the information on the said video, now in Douglas Marett's possession, in any way indicates that an "884 thyatron, a secondary amplifier and a variac supply" were utilized by Reich in his experiments with Washington as shown in Douglas' Fig. 5. Furthermore, David has recently told us that Mr. Douglas Marett never in his presence attributed any significance to the Reich video in his possession, until sometime in 1994 after the first of the Correas' applications were laid open.

But let us take Douglas Marett's word on the "884 thyatron, a secondary amplifier and a variac supply" theme for the moment, no matter how risky. It is apparent, from Reich's Fig. 11, p. 259 in "The Oranur Experiment", that at the output of the amplifier and pulse circuit section of the CMB-3A, there is a substantial DC potential of 180V. One can easily drive a DC motor from the CMB-3A, with nothing connected to the input grid of the 6J7 pentode and, with a suitable input signal, drive *any* motor that responds to "pulsed" DC. In other words, one can also drive an AC motor from the same CMB-3A output, as Douglas Marett shows, for as long as the 6J7 grid is being fed a signal. And that is indeed what Reich did (p.262, "The Oranur Experiment):

"An aerial attached to the grid system of the GM counter will (on condition that *the high voltage is not applied and no counter tube used*) activate the GM recorder, set a spinner motor of a certain type into motion, produce an output of 3,000CPM in a steady, even flow, with about 10 volts (...) per single impulse and between 50 and 70 volts in our arrangement per sequence of ca. 3,000CPM. The action can be easily stopped by disconnecting the aerial or by removal of the finger." (Reich's emphasis throughout)

Douglas Marett reports that with the "AC hum on the finger" (sic) touching the "CMB-3A grid", his eddy-current motor also turns at the output of the CMB-3A, though note that Marett, *contrary to Reich's specific instructions that the high voltage be turned off, has it turned on*. Whereas Reich had succeeded in making his spinner motor turn at the output of the CMB-3A without electrically energizing his aerial, that is not what Marett shows in the lower unnamed figure of p.4, below his Fig. 5.

But be this as it may, what it all means is simply that, *for as long as a sufficiently strong signal that varies over time is fed to the input grid of the GM counter's amplifier section*, one can run an AC motor from its output (as the constant DC potential at the output of the CMB-3A is chopped by the amplified signal), whether the input signal is noise, comes from GM tubes working in the plateau region or in the CD region, etc, *any input signal with sufficient amplitude sufficing for the matter*. Moreover, just about *any* AC motor will do at the output of the GM counter.

The reader should note well that *there is not a single necessary or sufficient link in all of this to the autogenous PAGD plasma regime which we have discovered*. The autogenous PAGD can hardly be confused with "hum from the finger", GM discharges (no matter how fast) or operation of GM tubes in the CD region!

What is more, Reich does not report *any* results he obtained when he connected both the Vacor tube to the input grid of the CMB-3A, and the spinner motor to the output of the same. In fact, in Fig. 10 (p. 256, "The Oranur Experiment"), Reich uses a Vacor tube wired to the GM counter exactly as Marett has it in his Fig. 4 *but without the motor at the output of the CMB-3A*. And in the aerial experiment described on p. 262 (idem), *Reich now uses the motor but without either a Vacor tube or a GM tube* at the input to the CMB-3A. So we are left knowing *nothing* about the coupling of the Vacor tubes to the spinner motor via the CMB-3A, except for Marett's suggested step shown in Fig. 4.

Now, how do we know that Marett's Vacor tube was operating as Reich described Vacor tubes should operate? Marett does not tell us either about the pressure, sealed status, input current, plate material, etc, of *his* supposed Vacor tube, nor whether it had been exposed to an ORAC, and if so, for how long, etc. The reader is left in the dark about any of these details, with the result being that Marett could be operating his Vacor tube in any of a variety of discharge regions: the GM region, the CD region, the Transitional Discharge region, etc, etc, even in the PAGD region, whether autogenously or not. But as all these regions are indistinguishable to him, the matter is a moot one.

Marett could too, it is true, have operated the Vacor tube with high-speed "orgonotic pulsation", at the rates that Reich and we have reported, had he used high-vacuum tubes that had been treated by exposure to ORAC chambers. But we severely doubt this was the case, not only because he would then have found what Reich discovered and we can confirm, but also because *the characteristics of these fast and linear oscillations, in our hands, are unable to drive the CMB-3A amplifier and thus, do not activate an AC motor at the output of the GM counter*. This is, in our view, why Reich did not report the results Marett does with the circuit Marett shows in the Marett Fig. 4. In fact, Reich wrote on the subject (p. 247, "The Oranur Experiment"):

"I continuously had the impression that the output of energy impulses was somehow limited by the material arrangements. It was not easy to find out how one could start eliminating unnecessary material arrangements. The ideal appears to be complete elimination of *all* electronic tubes, and to find the technical arrangement which would transform atmospheric OR energy *directly* into a mechanical motor force, without any intermediary amplification." [Reich's emphasis]

Clearly, Reich had no more success at driving a spinner motor from the output of his CMB-3A with "orgonotic pulsation in vacuo", than we had in driving *any* AC induction motor utilizing his

Vacor tubes- processed inside of ORACs the way Reich prescribed, from the output of the CMB-3A amplifier circuit or any other GM counter we have tried. This was the *barrier* which Reich confronted in his own research process and which Marett now obfuscates. And in fact, the famous third phase of Reich's development of the "orgone motor force" was not what Marett would have us believe, but a *much more astounding development* which would come to vindicate Reich's work, but this Marett knows nothing about. It has, in fact, remained and remains a mystery to this day. While Douglas Marett believes he has solved it...in the Correa work, he could not be further from the truth!

Indeed, ever since we repeated Reich's results with fast rates of pulsation in proper Vacor tubes, we sought to couple directly to those Vacor tubes a variety of high-frequency AC motors without any success. The oscillations are simply too fast for this purpose, and the motors too sluggish, whether they are eddy-current or of any other type. The point then is that the third phase of Reich's search for a mechanical application of the "orgone motor force" could never have been what Marett shows in Fig. 6 of his article. For all that Marett has there, for all to see, as Mike Carrell has also correctly noted, is a simple strobotron circuit, with one of the coils of a split-phase induction motor wired in series with the *different* pole (anode?, cathode?) of his power supply! There is *no way* that Marett could run his motor (is this still the 12V AC eddy-current motor?) *in this circuit* with the input of the high-rates of "orgonotic pulsation in vacuo" that Reich reported in his Vacor tubes. This we have confirmed for ourselves and know to be a fact. Essentially, all Douglas Marett has done (*after having read our patents*) is to attempt to capacitatively feed enough current to his tube to make it work *as an externally pulsed PAGD discharge*, probably *either* like Manuel's device and without auto-electronic emission, *or* as an externally pulsed or interrupted arc device with auto-electronic emission, *an art also taught in our patents* which Marett has now read "tant bien que mal". *In either case*, he opted for a circuit (Fig. 6, p. 7 of his Home Page feature) that is extremely *inefficient* because of CEMF, this being the obvious reason why Marett's motor hickups with his "quantum pulsations" rather than running freely with the pulses...

Now to the crux of the art we taught in our US patent #5,416,391, which works *with any* of a variety of motors. We have said:

"The AC motor employed may, in general, be of any type. Split phase, single phase, or two phase AC motors, be they universal, induction or synchronous types, having squirrel-cage, wound-type, eddy current, drag cup or hysteresis-type motors, will all respond to the pulses generated in this circuit" (Column 9, line 48 and following).

There is no talk here of a *specific* kind of motor, no *need* for a "spinner" motor, nor any requirement for an eddy current motor! Furthermore, the Correa circuits are neither equivalent to the amplifier circuitry of any GM counter, be it the CMB-3A, nor equivalent to the series motor circuit of Marett. There is absolutely no logical step from the CMB-3A circuits described by

Reich, or those interpreted by Marett, to the inverter art taught by the Correas! Driven by the PAGD, or just as well by interrupted vacuum arc discharges, the motors employed in the Correa inverter applications run freely within the appropriate ranges shown when operated in accordance with the Correa patented electromechanical art.

Notice well what Marett does with his *impressions and allusions*:

1. First he gives the impression that Reich's "final development" of the "orgone motor with Washington" stopped where he, Marett says it did, at Marett's Fig. 5. He has introduced no references from Reich's work to substantiate this claim, because there aren't any. Nor is there any evidence which would suggest that Reich coupled a Vacor tube to his spinner motor across the CMB-3A. Although it is a logical step that Reich might have taken, it would only have led him to discover, as we did confirm for ourselves, that it does not support any "transduction" of the high rates of "orgonotic pulsation" in Vacor tubes.
2. The next impression Marett would leave us with is that Reich's final "orgone motor" (without Washington this time) was something akin to his own (Marett's) Fig. 6. But there is absolutely no evidence for this, and the circuit Marett presents is both inefficient and unable to couple directly to the fast rates of oscillation in a Vacor tube.
3. Next, Marett deliberately sets out to create the impression that his Fig. 6 is equivalent to any and all of the circuitry we have presented in our electromechanical inverter patent. It certainly is not!

Incredible as this all may be, it is there recorded for all those who have eyes to see. In weaving his web of mis-perception and misrepresentation based only on his own hallucinating conclusions lies the clumsy but very real harm he is causing.

For indeed, Mr. Douglas Marett dismisses the simple facts that follow his contention regarding the disappearance of Washington and the very *significance* of the motors Washington was working on. If Reich's "orgone motor" were equivalent to the autogenous PAGD-driven or interrupted VAD-driven inverter circuits of the Correas, then there would be little reason to pursue the construction of *esoteric motor assemblies*, as both the PAGD and the IVAD can drive any of a plurality of motors.

It is precisely with his own argument that Marett dissolves *the difference and particularity* of Reich's "orgone motor". The fact is that it *required a special type of spinner motor* and, with further development, a special type of motor design *altogether different from anything which was available from any manufacturer at Reich's time*. In Douglas Marett's rush to declare the mystery of the "orgone motor" solved, he simply dismisses the fact that the nature of Reich's motor was *all essential* for Reich's discovery (otherwise Reich would not have been so concerned about the lost

motors). Marett writes:

"It is known that Washington was being paid to construct some new motors, as outlined in letters reprinted in the Conspiracy trial document, but little is known about their nature".

Well then, as *little is known* about the nature of these motors, and if the nature of these motors was *in fact so critical* for Reich's success that indeed Washington's disappearance *so alarmed* Reich at the time and for years to come, how can our man Douglas Marett simply jump to the simplistic strobotron/series motor circuit he provides in his Fig. 6, to conclude that the solution of the "orgone motor" was *that simple*. What then was the need for this special motor about which no one knows anything anyway...? Why then was Reich so preoccupied with the disappearance of Washington when, according to Marett, all Reich logically would have to do was pick up the phone and order another stock motor or go to any electronic junk store and pick one up? To believe Douglas Marett would be tantamount to calling Reich an imbecile.

Moreover, Marett's entire argument regarding any, even a distant connection, to the electromechanical art we have taught in our patents directly contradicts what those who witnessed (although there were few, besides Washington and Reich) Reich's formal demonstration of the final "orgone motor" have said about it. They all tell us that no tubes, Vacor, GM or otherwise were utilized, and that the special type of motor was driven...yes, from an accumulator and not from tubes! Hear their admittedly stingy reports:

"Reich never published the design for the orgone energy motor and I no longer remember the details of the experimental set-up or its operation. I do recall that it involved the use of an accumulator attached to a wheel; concentrated orgone energy was triggered by a small amount of electricity, an amount insufficient to rotate the wheel without the accumulator." (M. Sharaff, 1983, "Fury on Earth", p.354).

Clearly Sharaff refers to the special type of motor as the wheel. And he is specific as to what he can recall: that the "orgone motor" was driven from an ORAC. Now hear another witness:

"Ten years ago in Maine I saw a small motor turning over when attached to an orgone accumulator. "The power of the future", cried Reich joyfully. But as far as I ever knew, the experiment was not continued" (A.S. Neill, in Neill et al, 1958, "Wilhelm Reich").

Where have we hidden these "orgone accumulators" in our electromechanical circuitry?? Search as Mr. Marett may, they are nowhere in sight. Where have we, or Marett for that matter, succeeded *with the circuitry patented by the Correas-* minus a DC power supply- in running AC motors employing the "orgone accumulator" as a *power source* ??? Where has Reich ever been reported to have utilized *any* tube, be it a Vacor tube, let alone a Correa PAGD reactor, to drive his motor-wheel??? No tube has ever been reported by the witnesses to the demonstration. They are adamant that an ORAC was the "source of power" of the "orgone motor", and that Reich called it: "the

power of the future".

Now let us turn to Reich himself, precisely to his paper which we referred to in the ISNE3 Symposium: "A motor force in orgone energy. Preliminary communications." There, after describing his experiments with GM tubes and counters that gave high counts *when operated within the manufacturer's recommended conditions but after having been exposed to "concentrated orgone energy" in ORAC chambers*, Reich proceeds to describe how, with Vacor tubes that should be "silent" *because of their high vacuum*, he succeeded in making them luminate and produce even and "rapid impulses" that reached 25,000 cps. Then he adds that these were:

"reactions which can be obtained not only without any gas filling of the vacuum tube, but also without the application of the usual Geiger-Muller voltage. They can therefore be obtained unipolarly (...)"

Further, Reich concludes:

"The phenomenon described in the above paragraph with the high rate of impulses prove (...) [that] no ionization effects can be responsible for the impulses in the Vacor tube." (p. 9)

We should pause and wonder how Mr. Douglas Marett now proposes to produce the autogenous PAGD regime in the Correa reactors *unipolarly and without ionization* !? We should further wonder, as we have already said, how Mr. Marett recommends to run the autogenous PAGD at rates of 25,000 cps! For the PAGD to reach 833 cps, we had to use Alzak aluminum which, incidentally, was available in Reich's time. Note that the Correa reactors do *not* require any prior or posterior exposure to "concentrated orgone energy" in order to function in the autogenous PAGD regime.

As if these facts, for which Mr. Douglas Marett has an utter disregard, were not enough, Reich also wrote in the same preliminary communication:

"In order to set the Orgone Motor into motion, a certain function, called Y, is necessary. This function cannot be divulged at the present time." (p. 11).

Then Reich describes how the energy sources used by him included: "Orgone-charged Vacor tubes", "Atmospheric Orgone" (accumulators and aerials), "Earth Orgone", and "organismic Orgone Energy", stating that the speed of the motor could be regulated depending upon "the number of Vacor tubes connected", "weather conditions" and "Function Y".

Here then we have all the known clues there are to Reich's "Orgone motor". It was a specially designed motor that could be driven from "Orgone-charged high vacuum Vacor tubes", from ORACs or from the energy of biological systems (presumably human beings). To start the motor, a factor Y was needed, which in turn was also critical for the regulation of the motor speed, and thus needed for motor control and operation.

It is apparent that if Reich had succeeded in running a special kind of motor from the energy he thermally measured inside atmospheric ORAC chambers, it would be easy for him to do the same with a Vacor tube which was built as a vacuum ORAC chamber. It is also apparent that if Reich could run such a special motor with the fast oscillations output from his Vacor tubes, that a similar oscillation would be present inside the ORAC, as it "attracts and concentrates orgone energy". Furthermore, whether the "orgone motor" was driven from Vacor tubes or from accumulators, or "from the energy of living beings", "a certain function, called Y" was *always* necessary. Finally, the communication in question was written before Washington vanished.

All of this conclusively demonstrates that what Mr. Douglas Marett abusively calls "the final Reich/Washington orgone motor" never even qualified as "the orgone motor". Clearly, the nature of the motor(s) Reich utilized in his final motor set-ups was all-important, as *more than likely*, function Y had something to do with the particularity of motor design sought by Reich. Clearly too, the motor was a high-frequency one which could be driven with the fast oscillations which Reich was producing in his Vacor tubes *without a power supply and without any CMB-3A*, even be it the amplifier section "modified" by Marett. In fact, Reich explicitly claims to have driven his Vacor tubes *unipolarly*.

By now, it should be apparent to the reader that Mr. Douglas Marett simply does not have a clue what he is talking about, when he claims the mystery of the "orgone motor" was solved by the Correas in their discovery of the PAGD and the derived patented electromechanical applications. Marett's assertion is totally gratuitous.

We challenge him to drive the motor circuit which he presents in his Fig. 6 from any and all of his ORACs, to see if he succeeds in emulating Reich's results. Bonne chance!

The fact of the matter is that the electromechanical art *we* have taught for the direct coupling of an autogenous PAGD reactor to AC motors does not depend upon any of the four parameters listed by Reich, including "Orgone-charged vacor tubes", nor does it depend on any function Y for start-up, or upon the same function, whatever it is and was, for speed regulation and control. The electromechanical art we have taught in our patents is straightforward, and its source is any of a gamuth of DC power sources, not "Orgone-charged Vacor tubes", "Orgone accumulators" or living beings.

We invite those vocal few who have accepted the simplistic and facile views of Mr. Marett to review both Reich's and the Correas' published records and verify for themselves what we have here written. That is, if they are actually interested in the facts of the matter and not just in pure sensationalistic claptrap *The mystery of the "orgone motor" remains, as it has for the past fifty years*. In our view, the only reason why Mr. Douglas Marett has imposed his decidedly puerile pronunciamento that the Correas have solved the matter following a covert usurpation of Wilhem

Reich's work, is both because he is deeply ignorant of the complexity of the science involved and because he desperately wanted some notoriety for his insufficient work- regardless of the cost to both Reich and the Correas. It clearly mattered little to him if, in the process, he would trivialize and muddle the work of both. And so, he pretends to speak of "scientific ethics"! We hope Mr. Marett is prepared to stand behind his absurd but slanderous accusations and to put his money where his mouth is, for we are certainly ready and prepared to defend both our reputation and our *original* work.

2. Summary of the differences between the Correas' inverter technology and Reich's orgone motor

1. The Correas' patented electromechanical applications require a DC power source. Reich's "Orgone Motor" was not driven from any DC power source.
2. The Correas' patented electromechanical applications require a vacuum tube operating either in the autogenous PAGD regime or in the interrupted VAD mode. Reich's "Orgone Motor" did not require any vacuum tubes, nor even "Orgone-charged Vacor tubes".
3. The Correas' patented electromechanical applications require a vacuum tube operating either in the autogenous PAGD regime or in the interrupted VAD mode and *cannot* be driven from "Orgone-charged Vacor tubes", "Orgone accumulators", "living beings" or, for that matter, from antennas. Reich's "Orgone Motor" could be driven from "Orgone-charged Vacor tubes", or alternatively from "orgone accumulators" or "living beings".
4. There are no hidden functions anywhere in the Correas' patented electromechanical applications, nor any overt functions needed for start-up or continued operation that could be construed as having been hidden. Reich's "Orgone Motor" depended for start-up and operation upon an unknown (never divulged) "Function Y".
5. Reich's "Orgone Motor" operated with very high frequencies of oscillation, which are not possible with the autogenous PAGD art taught by the Correas.
6. The Correas' patented electromechanical applications utilize any of a series of motors, and are not limited to eddy-current motors, anymore than they require or prescribe a special type of motor. Reich's "Orgone Motor" required a special type of motor, possibly an eddy-current motor, but also possibly not, and this is why Reich was investigating novel motor designs and was so deeply concerned when Washington disappeared with the special motor models.
7. The Correas' patented electromechanical applications utilize low-pressure gas tubes which have not been exposed to any ORAC chamber, are operated at low rates of pulsation either in the

PAGD or IVAD regimes, and thus *involve*, in *either* case, auto-electronic 'field' emission. When driven by vacuum tubes, Reich's "Orgone Motor" required Vacor tubes, sealed at high vacuum and treated to "soak orgone" by pre-exposure to ORAC chambers, said Vacor tubes being operated at very high rates of oscillation.

8. Reich is adamant that "no ionization effects can be responsible for the impulses in the Vacor tube" and thus that, when the "Orgone Motor" is driven by these tubes, the process reflects the *quantum action* of a *massfree energy* in the "vacuum state". In contrast, it would be patently absurd to argue that no ionization and ion flow mechanisms were at work in either the PAGD or the VAD regimes utilized by the Correias as per their patented inverter technology. The gas-dependency of the PAGD and VAD phenomena, the vapor emissions, the dependency upon current input, etc, are all *so obvious*, that it is inconceivable to think that Reich would not have noticed them.

9. Finally, Reich claimed he could sustain these fast oscillations in his Vacor tubes utilizing what he called "unipolar" conditions. The same is simply and decidedly not feasible with the Correias' patented applications.

In spite of all this, Mr. Douglas Marett chooses to disregard all these obvious points entirely which, incidentally, are *integral* to the entire *prior* art of plasma discharge studies of the XXth century, initiated well before Reich was even interested in vacuum tube research, with such investigators as (yes!) Tandberg, Kobbel and K. Compton (decidedly not "minor references" as Mr. Marett asserts!).

The reader will by now have understood that, with all due respect to Reich and his work, nothing he wrote could be regarded as relevant to what we claim in our patents. If someone appears to find that it is a necessity to tie everything to the work of Reich, the rest of us are not compelled to assume the same unreasonable posture.

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V. Easy come, easy go

"There is no innocence in their buffoonery; they are the king's jesters."

All The King's Men

Of course, as one would expect, there have been other interventions as facile as Mr. Douglas Marett's regarding our work, as-

"My theory is that a CF reaction is taking place on the surface of the aluminium electrode (...) However, I would expect this to also result in 500 eV x-rays, of which I see no mention."

or

"At the recent LENR conference, I was most impressed by Dr. Tadayoshi Ohmori's scanning microscope photo of a dark pit on his gold cathode (...) What could be more innocuous? (sic) (...) The photo was outstandingly wierd, like something in National Inquirer (...) My instant interpretation was that a microexplosion beneath the gold surface had vaporized the hydrogen saturated gold (...) A nanonuclear bomb! (...) So, to my mind, what could be simpler than for the same microexplosions to be occurring in the Correa's cathodes (...) We may surmise that a natural psychological resistance exists to admitting the availability of nuclear explosions, however micro, under our very noses [!!!]. Indeed, among the 112 references listed by the Correas are many titles hinting that the nuclear blindness was prevelant (sic) for decades [!!!]"

or still,

"See if the timing of the PAGD output pulse is coincident with the drive pulse. I've been studying this stuff hard trying to make some sense of it, and I always end up more confused then when I started. I suspect you [Carrell] have this problem also, if Correa talks like he writes."

or, our personal favorite *betise-*

"I guess soon the Correas will be getting cancer [from PAGD X-rays!!] or they will be exposed as fakes."

Although entertaining as dinner conversation as such uninformed babble may be, it rolls like water off the proverbial duck's back. Everyone is certainly entitled to his or her opinions, no matter how absurd they may be. Far different however, is the malignant individual who pretends to have "direct knowledge" and "personal communications" which never occurred and who intends to exploit his misrepresentations and innuendo for his own ignominious gain. This, we are not amused by and will not excuse.

...By the way, and for the record: no X-radiation is detectable outside the PAGD reactors during their operation; the operational voltages of the autogenous PAGD reactors are too low for X-ray production; cathodes retrieved from disassembled reactors present no ionizing radiation, and counts obtained with very sensitive detectors are at background.

This is it then. We encourage Mr. Douglas Marett to, for once, put his money where his mouth has taken him. This is our last open response to his libelous charges. As far as we are concerned, he is just another ghost on our path and is not worth one more second of our time. *Dixit.*

"Yet all these were, when no Man did them know,
Yet have from wisest Ages hidden beene;
And later Times things more unknowne shall show.
Why then should witlesse man so much misweene,
That nothing is, but that which he hath seene."

Toronto, 28 November,1996

