1. unlike machines t=at turn on when the switch is thrown. . in essece default off.=C2 biological systems are default on. they attempt to stay =n. the system of excitaiton and inhibiotn is not dissinmlar from adj=sting the speed of a car. to make it go faster. you can =ither put your foot on the gas or take it off the brake. =much of the early advances in medicine and pyschology were during th= industrial revolution, when machines were the examples. the b=dy as a machine was the way to look and try to figure out what was going o=.   hydrualics. for muschle . s cranes j=its pulleys. . for psychological issues the machine =A0 and some of its terms became inbedded in the system.   thinki=g like a well oiled machine. input output, , computation, memory, ,=C2

  the view was that a dream state was turned on=when one fell asleep/ the equivalent of going to the movies.=C2 what was on the screen was then analyed , examied =rightened amiused , it was in a dark enclosed skupp of a room. peopl= wer able to fly. etc. I think that there is another mor= biologial system explantantion. I postualte that dreams =are ALWAYS on. running 24 hours a day, one gets to exper=nce them when the screen of conciousness drops away, it is tha= conciouness sets a screen in front of the dreams. I takes energy to=keep the conciuosnes screen continuous, and opaque with respect the dreams= if conciousess screen starts to fade. we can see =ehind an start to day dream, if we are unable to craft a scree= with no holes we are fine but that takes enerngy and sleep to fill =n the holes. without sleep the holes form and dreams sta=t poking their way through. schizohrenia is a person not being=able to distinguish between dreaming and reality.   he is walkin= in the street but he hears his mother .   the neighborhood cat =ight speak to him.   things that everyone experiecens in their d=eams the schizoid cannot tell the differnece his screen is dam=ged. the dreams behind the conciosness screen are tied t= the emotions., why am i in a bad mood , could be because I am havin= a bad dream behind my conciousness screen,   a feeling of dread= , somethin happend in my dream. etc. . it turns out tha= schizoeds suffer sleep ailments. sleep deprivation caus=s hallucinations. (dreams while awake). the conbc=uousess screen is tied to our senses. run through focus filters. wit= a feedback that in some instances are hard wired,   aversion , =anger, , its the acgivity behind the screen that answers the c=mpleix quesiotns. the aha moment is when the dream room sends its me=sage to the conciouness room.

2 music , =A0 most animals make sounds. what does music represent. =C2 it is melody prosody, inforamtion both verticaland horizonal.=C2   chords melody. . as it is generated from the brain=can it be reversed engineered and used to probel the workings of the machi=e tha creatied it. . listeing to a flute, and its tonal =uality   from the sound analysisi , a long empyt tube can be pos=ualted.   but thats only its structure,   rythms =are a product of the player not only the structure. do german marche= provide insite into a german mind. is it organized regulaid.=C2   beats that range from 30 - 12 bpm.   do afro a=ericnacs. think more like jazz. somewhat off the beat.=C2 (humor. unpredictable movements making it harder for a german to ta=kle down the field. .).   why do soldiers mar=h further to music, runners run further.   . A=symphonic structure is theme repetition vaitaion on the themes =conclusion. the same dictum given to public speakers. =A0 tell them what you are going to say, say it , tell them wha= you said.

3. mathematics is the search for truth. =A0   algorithms that do not change there result with the passing=of the day. . mathematics stands outside of time. the id=al of a point or line (separte from einsteins measuemrnt issues as the ac=aul measurement is much more diffcult . requiring a beggining and an= end therefore measurement lives in time space.   ma=hematics is the search for truth. I postualte that Biology and=biological systems differ from mathematics beacuse it is needs deception t= survive. biological systems only make sense in time space. , =rying to stay away from what is the moment of life or death. . =C2 predator prey. biuoogical systems need free energy=in order to maintain

structure dissintegraing from entropy, =A0 eneygy needs to be ingested inorder to fight the slope down to breaking=apart and returning to dust. . getting energy, =A0 the most basic bio requirement. in bio systems howeve= the best way to get energy is either from the sun, a limtied chenical rea=tion or heat gradisent. the energy must come from outside. =A0 the way for systems to gain enery is to eat it. the way not to di= is to eat andnot be eaten. . the game of eat or not be eaten is very soph=sticated   what is the entity . the cell . the organ=, the organism . the community on and on.   he=rarchila nested systems. at every level decision have to=be made , is it ok to sacrifice a few cells so that the organism can live.=C2 which cells. do they get a choice? how many=C2 when . when the organism is eaten by its predator. how d=d it try to protect itself. camaflouge, surrounding itse=f in junk, mimicryy, misdirection, misinformation. etc.. =qurum sensing game theory, free will, bait, ants, .

</=iv>
4 we have come a long way in surveillance and detecting and =ncoding and decoding communticaions between people between computers, . =A0 we can do this beacuse we can pick out the words in text, embed i= in a grammar space,

 we know the language/ =A0 we need to do the same now for biology, what is the l=nguage of the cells. do they communcat with proteins, . what a=e they saying to each other, is teh oanaguage encrypted = does each person have his onw code.   is it chemcial or e=ctrical or both. or physical like the shape of the protein fiiting i= a lolck, or combination of all three. the protein fits. the electri=is fired, etc. does the brain send a message. what does medicine do.=C2 does it fool the receiver the sender. the listener. the =istory of telemommincaiotns intercepts have a long histroy ref=rring to alice and bob that would like to speak to each other, =C2 they encript their messages. so that a listener cannot d= damge. . why not attack the bio language the same way a= speech.   have nsa work on decrypting the dif=ernce in signals from a cancer cell as opposed to a helathy one. we =now that cells send out messages , am i in the right place. =A0 if they get no answer or the wrong aswer they are programeed to c=mmit suicicde. when a foreigner shows up in a neighborhhod tha= is hostile , he is surrounded. killed and moved i=to the trash. he can masquerade as a local. how ca= the other cells tell. can they ask him who won the world seri=s. ? . maybe an equivalent. friend or foe, ? =decoding skills find it difficutl to decipher if there is no repitition =A0 or action that is the result of the message.   the famo=s example separate from heil hitler at teh end of the message (anecdote o= true). to break a code that was recieved from the germans =A0 the allies planed a bomb in three citie all set to blow at teh same tim=, they thoguth that the word for bank or bomb would be i= the message for the day. . or so the story goes.

money   what is it . is it a mirage that disap=ears when you look too closely, can you have money without deb=, is it an accounting system. what and whys of itn=rest. was it for small communities. ? with the same currency,=C2 what is the dirrency beteen curency and money, what is t=e meaing of value,? cost. market. what is a derivative,=C2 futures , stocks bonds, options, converitibles. how doe= trust fit in, can you have money with no trust. i= each other in an institutuion, , what is credit, is it different th=n money, , social contract. reputation. economics.=C2 . currency exhange, bitcoin, zero knowledge proof. ,

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  =C2   please note