

Book - 27

Also can any plan be  
better than the Social  
structures upon which it  
is built - Or will it  
notwithstanding its original  
nobility and ~~perfect~~ intentions  
be corrupted and repared  
in the image of the men  
who invented it -

The corruption of the

official - he -

Democrat

Private

a Communist must

be examined carefully -

Corruption is moral  
rottenness, the opposite  
of a false hypocrisy of morality

D.E. - a plan is like a  
bridge - to judge its  
value - aside from the  
internal logic of the  
plan itself - we must  
always know from where  
it ~~starts~~ starts and where  
it leads to.

Today if it does not  
not start from <sup>the</sup> objective  
science and lead  
to ~~the~~ the development  
of ~~the~~ the full potential  
of all the people - it is  
an antiquated and ~~obsolete~~  
reactionary plan.

NEW IDEAS - <sup>"The way of"</sup> DESIGN = ORGANIZATION

Tomorrow - Preview of the wonder  
world of tomorrow  
already being prepared  
today -  
Necessary Ingredients for  
realization - Peace & Design

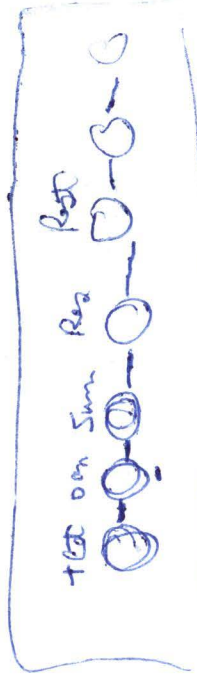
Forms of Social Organization Around the  
World - color - & animation -

make the  
exotic  
Travel documentary  
group-up -

Polynesia  
Africa  
Tribal  
Europe  
America  
Russia  
China - Communes etc

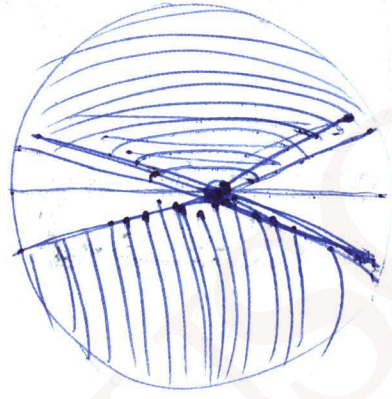
illuminate a problem close to the minds  
of all thinking people

Best Stereo Filming



Stereo Theater

2 Cinemascope Cameras in synch  
running at 16 fps per sec.



~~Projector~~  
alternate print

Projector into rotating polaroid  
disc.

Cinemascope Screen

Good glasses - relaxed

a good 2 hour

Thull + poetry don

add - dance bring  
~~(minimum staff)~~  
(+ redundant orgs)

stereocamera

Gymnasium  
Open all day  
any costume  
anywhere - no walls

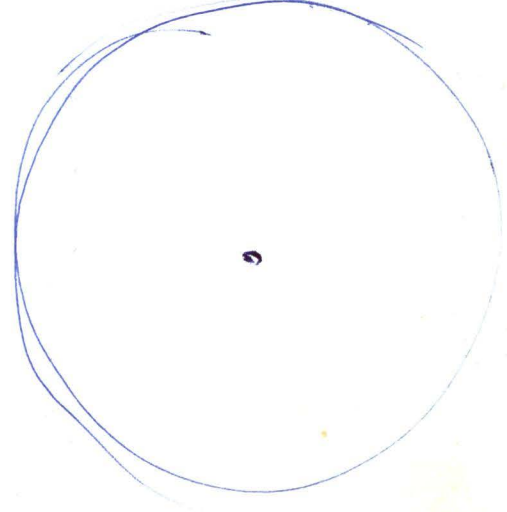
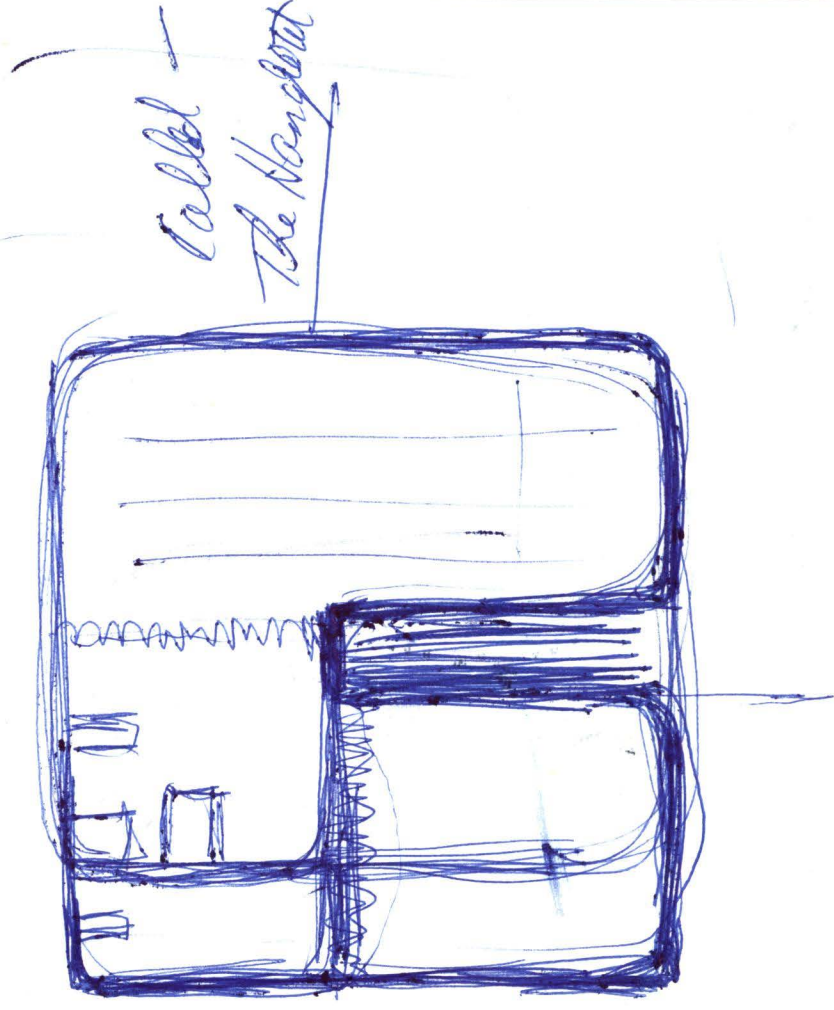
Plastic Roof - Island roof  
Air conditioned -  
Bell Sidewalk

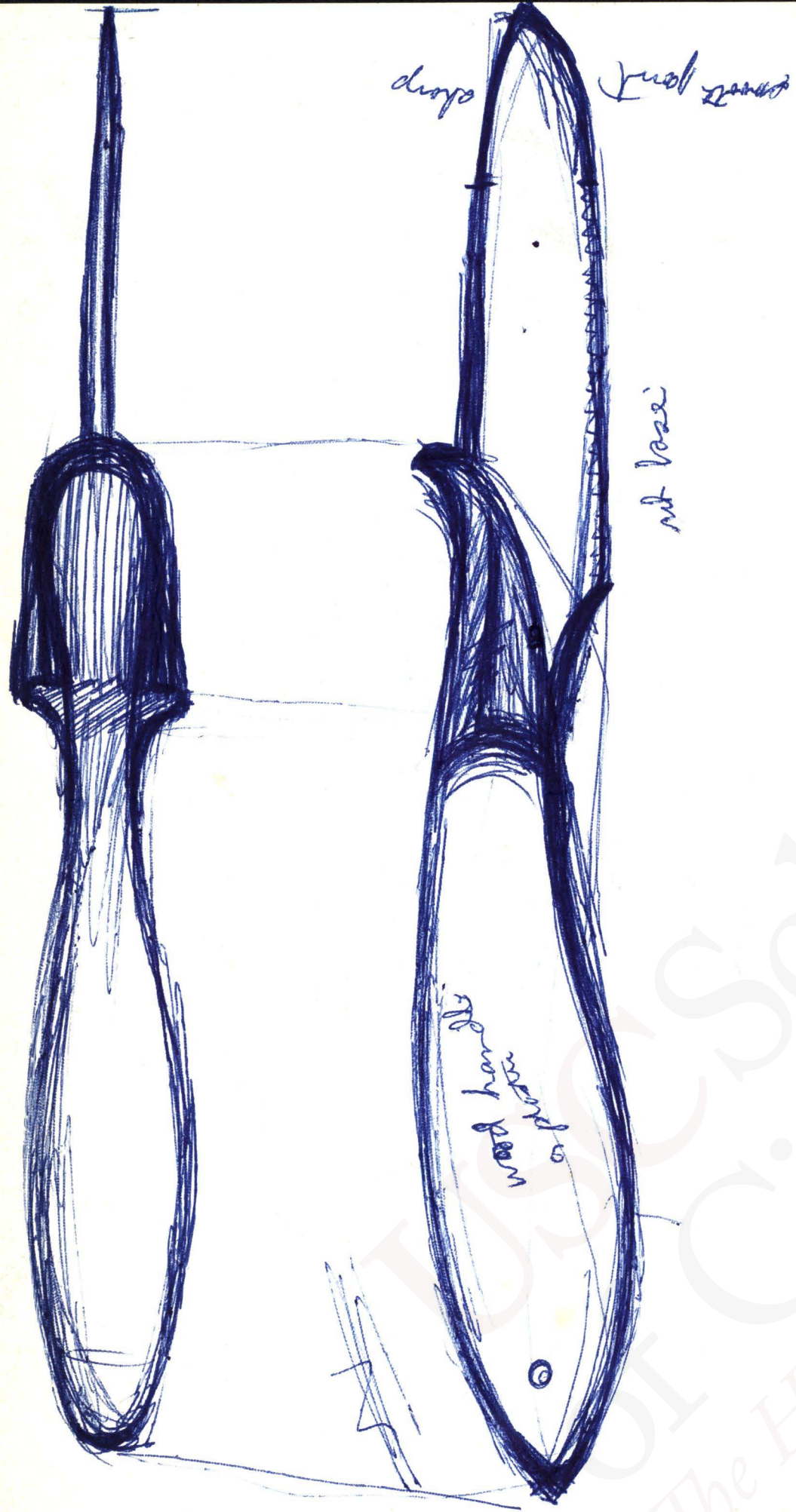
Dress & Trees  
Pacific lighting on trees etc  
& pool

Pool - Gymnasium  
showers  
Electronic  
- built roof over good for swimming

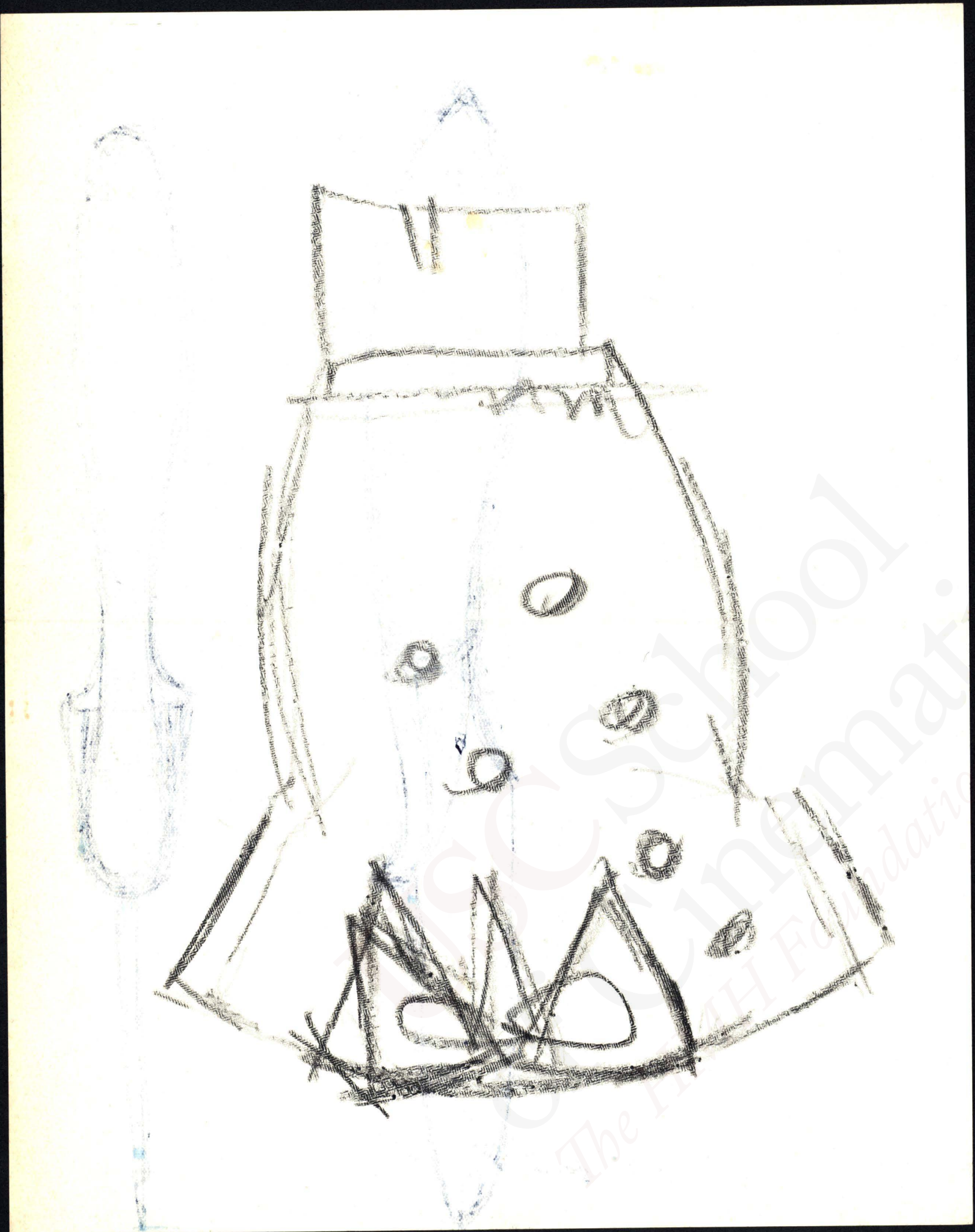
Dancing -  
Large games -  
Cinema - Occasional rope - Theater  
Reading room

Each unit not too big -  
Cheap prices - big volume -



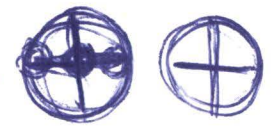


U.S. School  
Cinematography  
The HMH Foundation

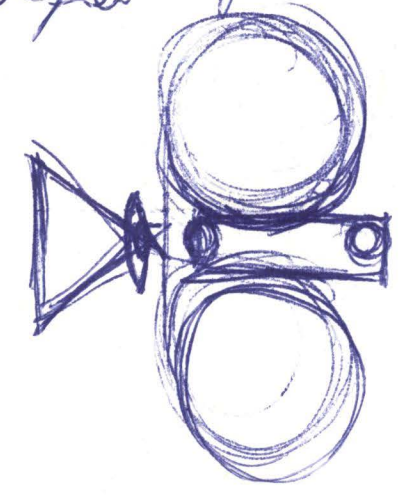
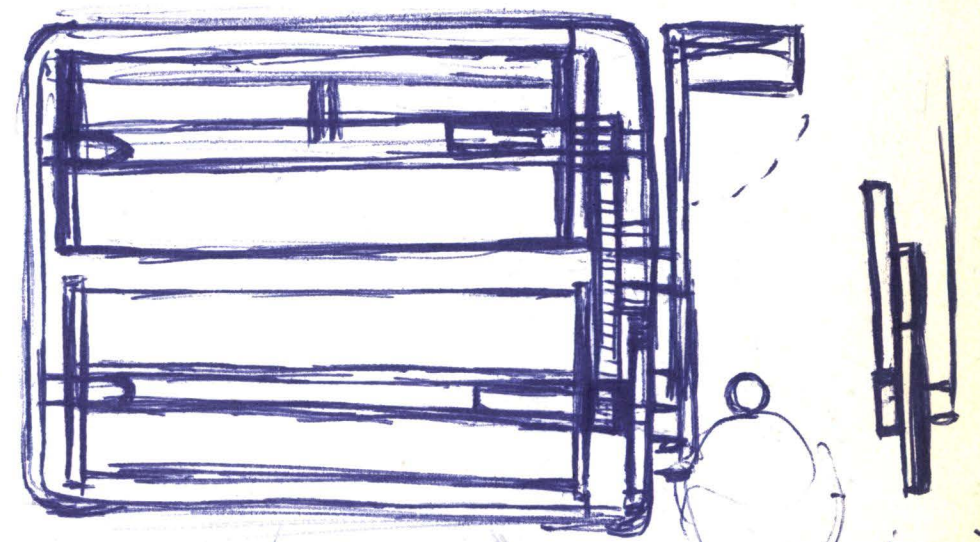


PORTABLE DICTIONARY 1000 ~~key~~ words

2 interesting devices that engage only in the pull direction & ~~not~~ for in push direction



switch to rotate not flip



different color faces to distinguish which way



window closed 3x4  
I → 3-12  
one turn of tray yields 12 turns of paper

BUT	BOTT
CASA	HOUSE
CARA	DEOR

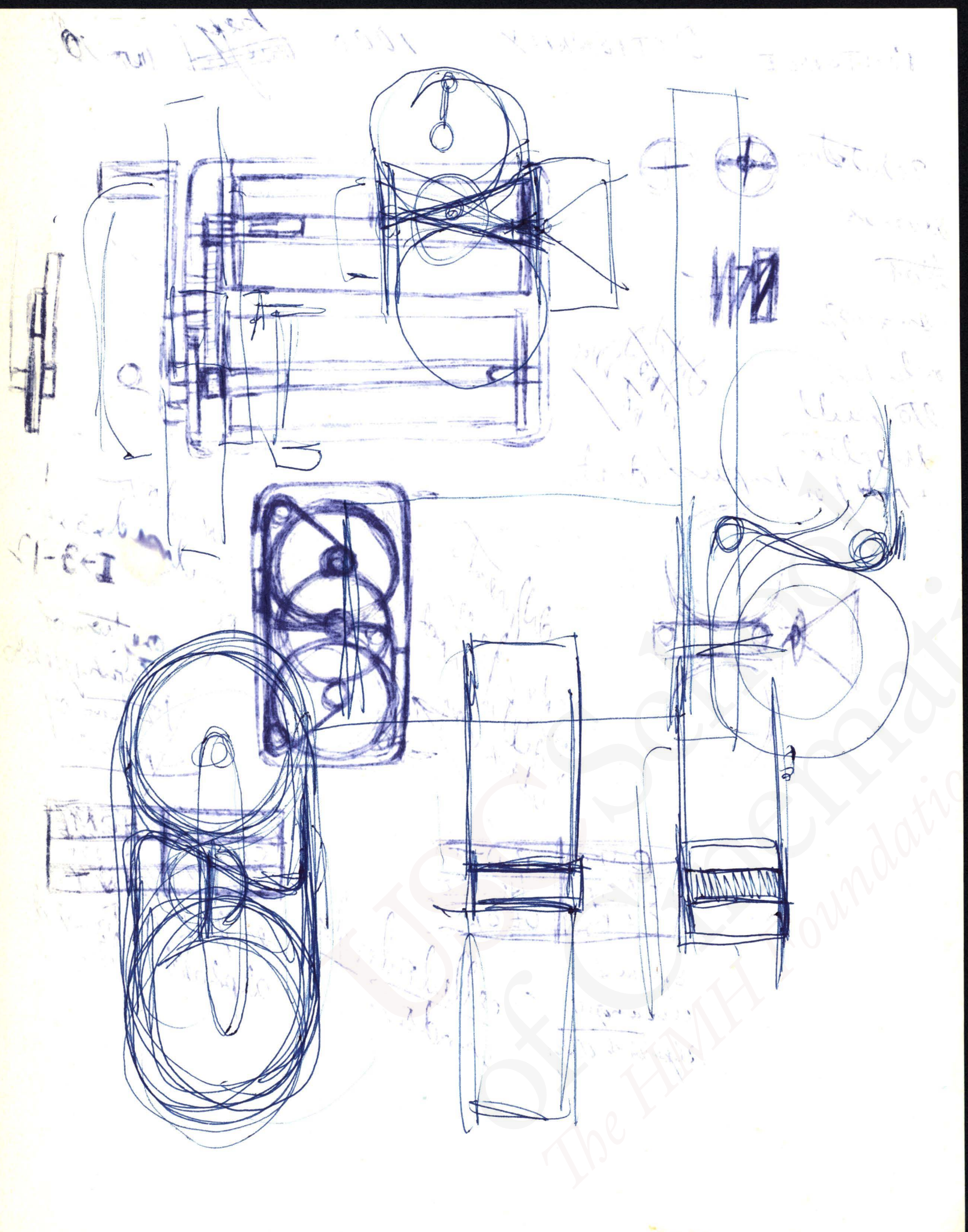
Spanish arranged alphabetically

celluloid or glass window

COSA	HOUSE
HOME	HOUSE

English arranged alphabetically





В советском павильоне Всемирной Брюссельской выставки среди множества экспонатов будет один необычный прибор. Установленная на полу небольшая стойка из металла и пластмассы поддерживает модель человеческой руки. На той же стойке подвешен на электрическом шнуре металлический браслет, похожий на браслет ручных часов. Консультант, обслуживающий прибор, предложит любому из посетителей надеть браслет на руку и мысленно представить себе, что он сжимает кисть руки, украшенной браслетом, в кулак. Можно представить себе изумление посетителя, когда он увидит, что в ответ на его мысленное приказание искусственная рука на стойке сожмется в кулак. Посетитель сам, не шевельнув и пальцем, может сжимать и разжимать искусственную кисть быстро или медленно; может, например, раздавить орехи или, наоборот, бережно перенести с места на место тонкий стеклянный шприц. Чтобы осуществить любую из этих операций, достаточно только подумать о соответствующем движении. Железная рука «угадает» и выполнит ваше желание!

Это чудо, подчиняющееся мысли человека, было впервые создано в 1957 году в Центральном научно-исследовательском институте протезирования и протезостроения в Москве. Первая модель, изображенная на фотографии, была менее совершенна, управляющий ею человек мог изменять только направление и скорость движения пальцев; усиление сжатия кисти не зависело от его воли и сохранялось неизменным.

Вторая модель руки уже обладает способностью воспроизводить продиктованную волей человека величину усилия. В настоящее время ведется работа по созданию новых моделей рук, обладающих осязанием, то есть способных передавать оператору ощущения температуры, твердости и состояния поверхности сжимаемого предмета. Намечено создание моделей рук, которые по воле оператора будут двигаться также в плечевом и локтевом суставах, то есть приобретут большую пространственную маневренность.

Создание этих моделей, потребовавшее применения достижений многочисленных отраслей науки и техники, осуществлено группой советских специалистов в составе А. Е. Кобринского, А. Я. Сысина, М. Л. Цейтлина, Я. С. Якобсона и авторов этой статьи.

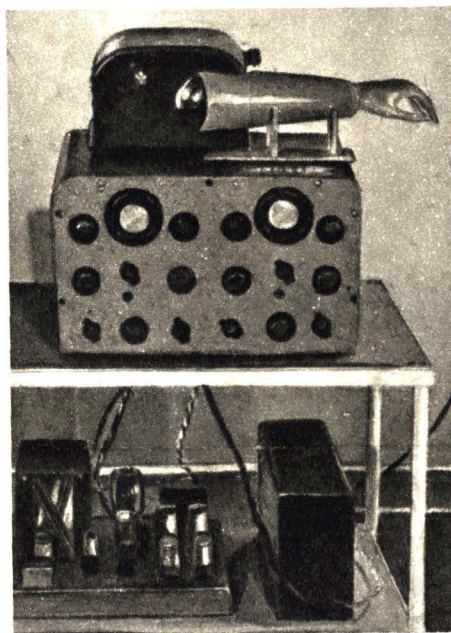
Для чего понадобились эти «волшебные руки»? Созданы ли они только с целью дать занимательный фокус или это важное достижение техники? Для того чтобы ответить на этот вопрос, необходимо разобраться в том, как используется мысль человека для управления механизмами.

Всякая деятельность живой ткани характеризуется, кроме распада сложных соединений, образования новых веществ, теплообразования, еще и возникновением в ткани электрических потенциалов. Так, в человеческом организме, в его центральной нервной системе, сердце, мышцах, желудочно-кишечном тракте и др. возникают характерные изменения электрических потенциалов, которые носят название биотоков.

Если к голове человека приложить две токопроводящие пластинки и соединить их с чувствительным электрическим при-

# МАШИНОЙ УПРАВЛЯЕТ МЫСЛЬ

М. БРЕЙДО, инженер,  
В. ГУРФИНКЕЛЬ, врач



Экспериментальная установка «Железная рука»

бором, то последний будет непрерывно показывать изменения электрического потенциала. Величина и частота колебаний потенциала зависят от того состояния, в котором находится человек. Эти изменения, записанные в виде кривой — энцефалограммы, позволяют судить о некоторых процессах, протекающих в центральной нервной системе. Форма кривой может характеризовать болезненные состояния (опухоль, воспаления и др.). Кривые изменяются, когда человек засыпает или испытывает недостаток кислорода. Однако, вопреки некоторым фантастическим утверждениям, энцефалограммы нельзя еще использовать для расшифровки мысли человека и даже для улавливания простейших команд, посылаемых мозгом к различным органам тела, так как сосредоточенные в малом пространстве миллиарды нервных клеток мозга генерируют одновременно множество весьма схожих по характеру импульсов. Значительно более легким оказался путь использования для этой цели биотоков, возникающих в мыш-

цах в ответ на команды, идущие из мозга. Информация о командах, которые вырабатываются в центральной нервной системе, может быть получена путем улавливания сигналов, возникающих непосредственно в мышцах. Эти сигналы можно также записать в виде кривых, которые называются электромиограммами.

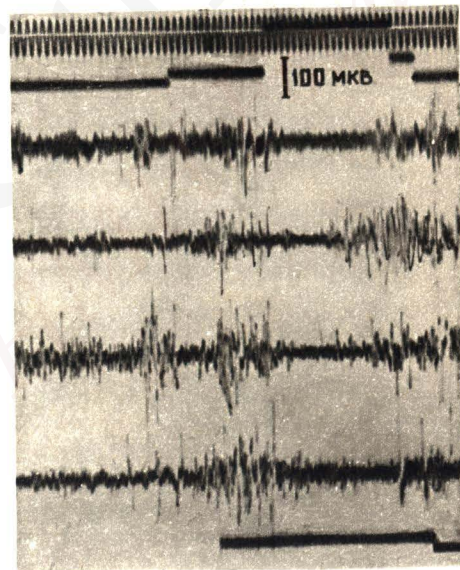
Размеры зубцов электромиограммы характеризуют величину напряжения мышц. Если человек поднимает гиру весом в 10 кг, то величина этих зубцов будет вдвое больше, чем величина зубцов при подъеме гири в 5 кг.

По электромиограмме мы можем судить не только о том, что мышца получила от мозга команду развить напряжение, но и количественно характеризовать эту команду, оценивая величину зубцов электрограммы. Человек может по желанию вызывать появление биопотенциалов в мышце и регулировать их величину, не производя движения. Это отличает биоэлектрические потенциалы мышцы от биоэлектрических потенциалов других органов и тканей, например сердца, желудочно-кишечного тракта, глаза и др., где изменения могут происходить только непроизвольно, то есть вне зависимости от воли человека. Поэтому для управления наиболее пригодны биоэлектрические изменения, возникающие в мышцах. Но в дальнейшем, когда люди научатся более детально анализировать картину, изображенную на энцефалограмме, можно будет использовать для управления непосредственно и биотоки мозга.

Чтобы через биотоки мышц управлять механизмами и приборами, нужно иметь три следующих устройства: токоусъемник, с помощью которого биопотенциалы отводятся от мышцы, электронную установку для усиления и преобразования потенциалов в форму, пригодную для управления, и исполнительный орган, который выполняет команды, приходящие через мышцу от мозга. Каждое из этих устройств может быть выполнено различными способами. В качестве примера можно привести описание того, как это выполнено в упоминавшейся выше модели человеческой руки (см. цветную вкладку). В качестве токоусъемников применяются небольшие металлические чашечки, заполненные токопроводящей пастой. Эти чашечки укреплены в браслетке, надеваемой на руку.

Чашечки соединены проводами с электронным усилителем, с которого уси-

Осциллограммы мышечных биотоков.



## КОГДА БУДУТ УПРАВЛЯТЬ БИОТОКАМИ...

Изошутки Г. Кычакова



— Что ты делаешь тут со щеткой?  
— Сажаю яблоню на загородном участке.

ленные биопотенциалы подаются на вход двухполупериодного выпрямителя. Выпрямленное напряжение поступает в интегрирующий блок, напряжение на выходах которого приблизительно пропорционально значению мощности биотоков. Преобразованные таким образом биотоки подаются на катушку электромагнитов, управляющих дросселями каналов гидропривода.

Гидравлический привод модели руки представляет собой цилиндр с поршнем. В каждую из полостей цилиндра по обе стороны поршня по отдельному каналу подается от насоса масло. Направление движения поршня и развиваемое им усилие зависит от того, сколько жидкости и под каким давлением подается в каждую из полостей. Подача жидкости по каждому из каналов разделяется регулируется одной из двух мышц. Поршень через рычажную систему связан с механизмом искусственной кисти. При движении поршня в одну сторону кисть сжимается, в другую — разжимается.

Поскольку по желанию человека на-

— Ой, больно! В палец вцепился краб!



пряжение на мышце может изменяться в сравнительно широких пределах и поддерживаться им на требуемом уровне с достаточной точностью, механическая рука может так же точно выполнять мысленные приказы человека.

Посетители Всесоюзной промышленной выставки имели возможность наблюдать работу манипулятора, известного под названием «механической руки». Этот манипулятор, применяемый в работе с вредными для здоровья человека, в частности радиоактивными веществами, приводится в действие пальцами рук человека, движение которых при помощи системы рычагов и тяг передается исполнительному механизму манипулятора. С помощью системы биоэлектрического управления могут быть созданы значительно более совершенные манипуляторы, более чувствительные и легко управляемые. Так как усиленные биотоки можно легко передавать по проводам или по радио, человек, находясь за тысячами километров от своего рабочего места и ведя контроль за работой с помощью телевизора, может, даже не двигая руками, производить необходимые операции в самых недоступных местах. Такими «биоточными руками» можно оснастить батисферы, опускаемые на большие глубины, космические корабли, атомные лаборатории и др.

Весьма интересно применение биоэлектрических систем управления в целях протезирования. Уже сейчас разрабатывается проект биоэлектрического протеза руки. Этот протез будет надеваться на оставшуюся часть поврежденной руки и управляться биотоками, поступающими из центральной нервной системы через оставшиеся части усеченных мышц. Он будет приводиться в движение сжатым воздухом от помещенного на пояс легкого баллона. Для усиления и преобразования биоточных импульсов можно применить малогабаритный полупроводниковый прибор.

Весьма перспективным может явиться создание управляемой биотоками установки, предназначенной для лиц, лишенных верхних и нижних конечностей. Можно представить себе легкую удобную коляску, приводимую в действие от аккумулятора и оснащенную двумя биоэлектрическими руками. Лишенный возможности самостоятельно передвигаться и обслуживать себя, инвалид в такой коляске сможет подъехать к столу, самостоятельно взять стакан, ложку или вилку, принимать пищу

и совершать другие необходимые бытовые действия.

Многообразны применения биоэлектрического управления для лечебных целей. Тяжелыми последствиями полиомиелита являются параличи рук и ног. Причиной паралича является поражение клеток центральной нервной системы, управляющих мышцами этих конечностей. При этом не все нервные клетки погибают безвозвратно, но биоэлектрический сигнал, создаваемый оставшимися клетками, недостаточен для приведения в действие мышц. В результате бездеятельности в мышце могут наступить необратимые изменения. И наоборот активная лечебная гимнастика способствует сохранению мышц и частичному восстановлению деятельности нервных клеток. Используя оставшиеся слабые биоэлектрические сигналы, можно создать аппарат для лечебной гимнастики, управляемый самим больным.

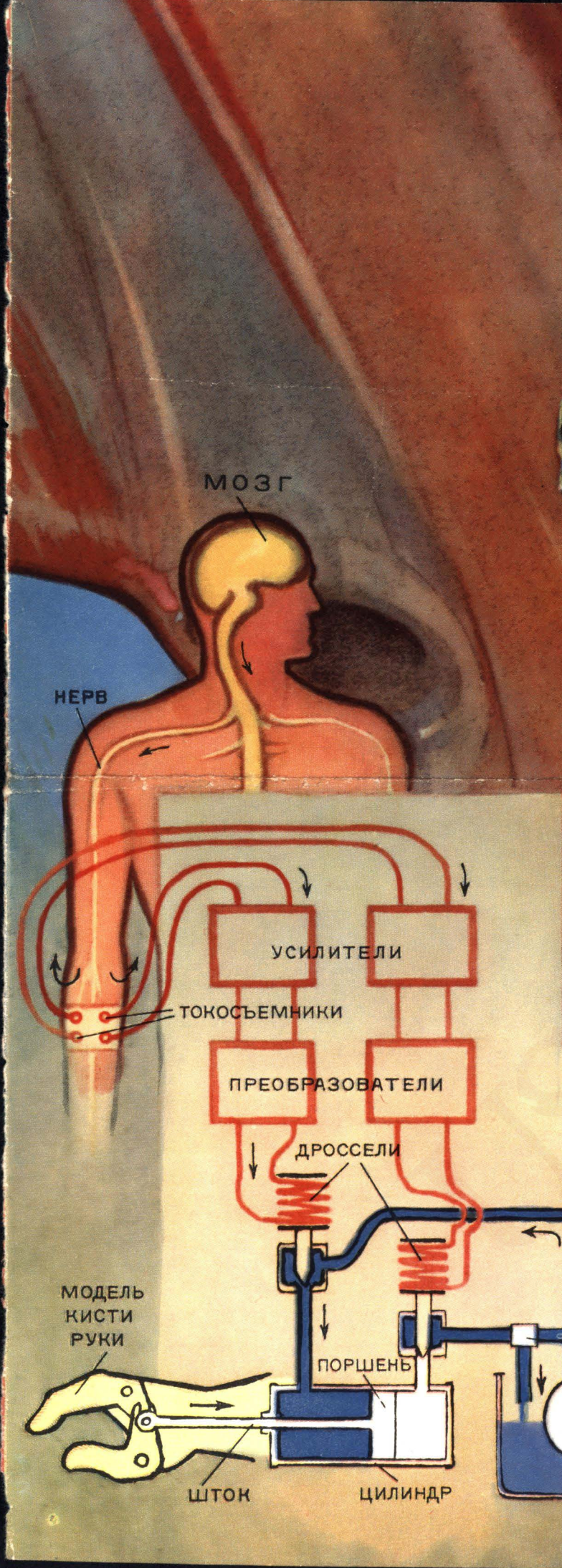
Такой аппарат будет помогать больному осуществлять движения в суставах пораженной конечности и тем самым будет способствовать восстановлению функций нервных клеток.

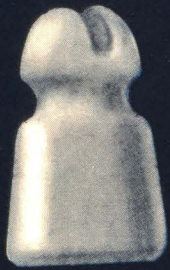
Другим примером использования биотоков в лечебных целях может быть прибор для искусственного дыхания, применяемый при полиомиелите в случаях поражения нервных клеток, управляющих дыхательной мускулатурой. В таких случаях больного помещают в аппарат, носящий название «железные легкие». Он представляет собой металлический цилиндр, в котором периодически создается разрежение воздуха. Голова человека расположена вне цилиндра. При разрежении воздуха в цилиндре происходит расширение грудной клетки, вызывающее пассивный вдох. При повышении давления в цилиндре происходит выдох. В существующей конструкции «железных легких» ритм дыхания задается принудительно и сохраняется постоянным. Между тем человеку в зависимости от его состояния необходимо в разных случаях дышать с различной частотой и глубиной. Если использовать для управления «железными легкими» биотоки, снимаемые с дыхательных мышц, можно сделать их работу близкой к потребностям человека. Еще большее значение имеет то, что при этом дыхание больного становится активным, что должно способствовать более быстрому и более успешному восстановлению нервными клетками утраченных ими функций.

Биотоки дыхательных мышц могут быть использованы не только в лечебных целях. Управляющие сигналы дыхательных мышц могут регулировать работу кислородно-дыхательной аппаратуры, подачу воздуха в скафандр водолаза и др.

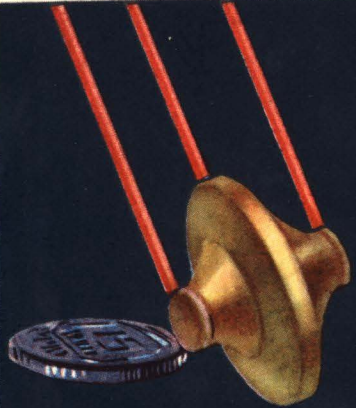
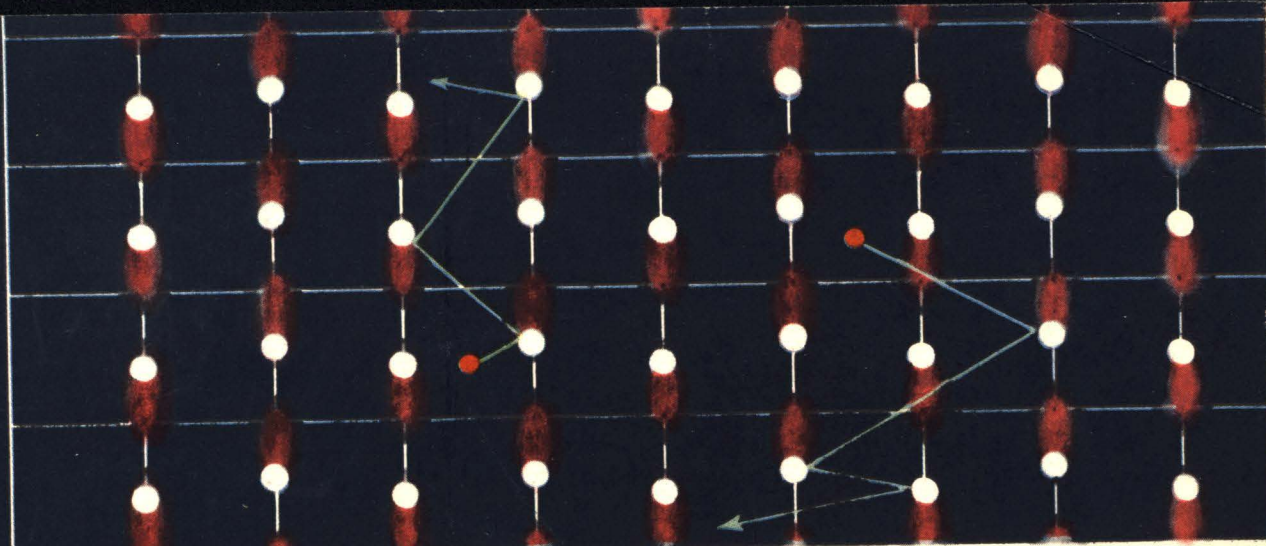
Наконец очень заманчивым должно явиться применение биотоков для комплексного управления машинами без участия мышечных движений. Можно представить себе самолет, в котором пилот не держит в руках рукояток управления, а самолет выполняет сложные эволюции, подчиняясь мысли летчика. Преимуществом такой системы должна явиться большая точность и быстрота управления, так как в ней отсутствуют промежуточные звенья в виде мышечных движений, вносящие некоторую задержку и погрешности в реализацию команд, идущих из центральной нервной системы.



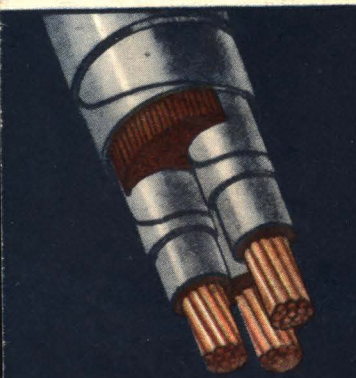
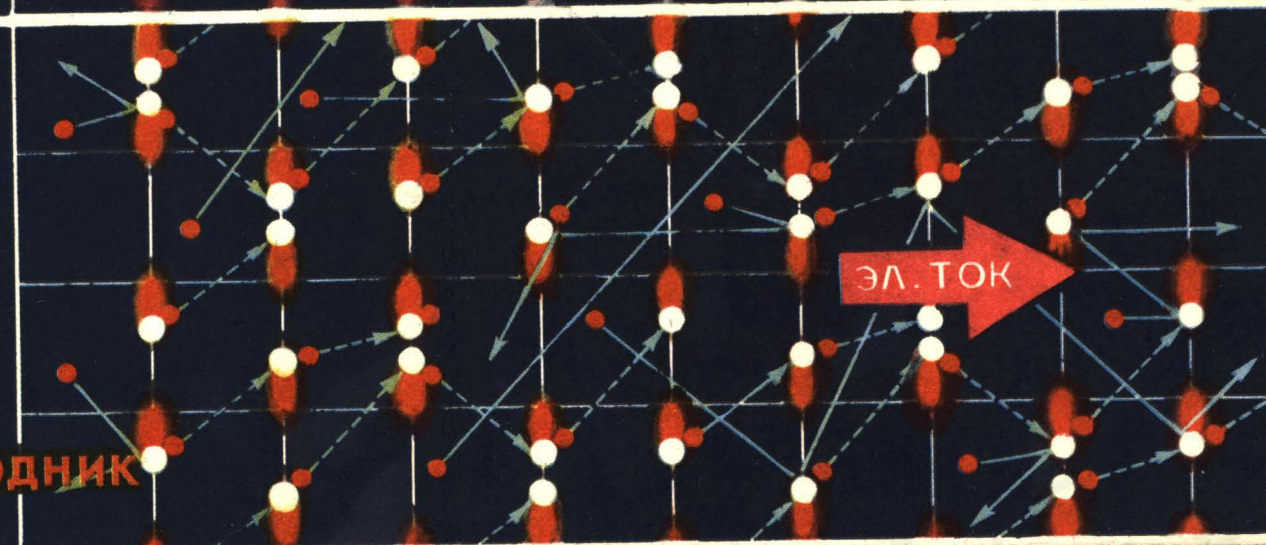




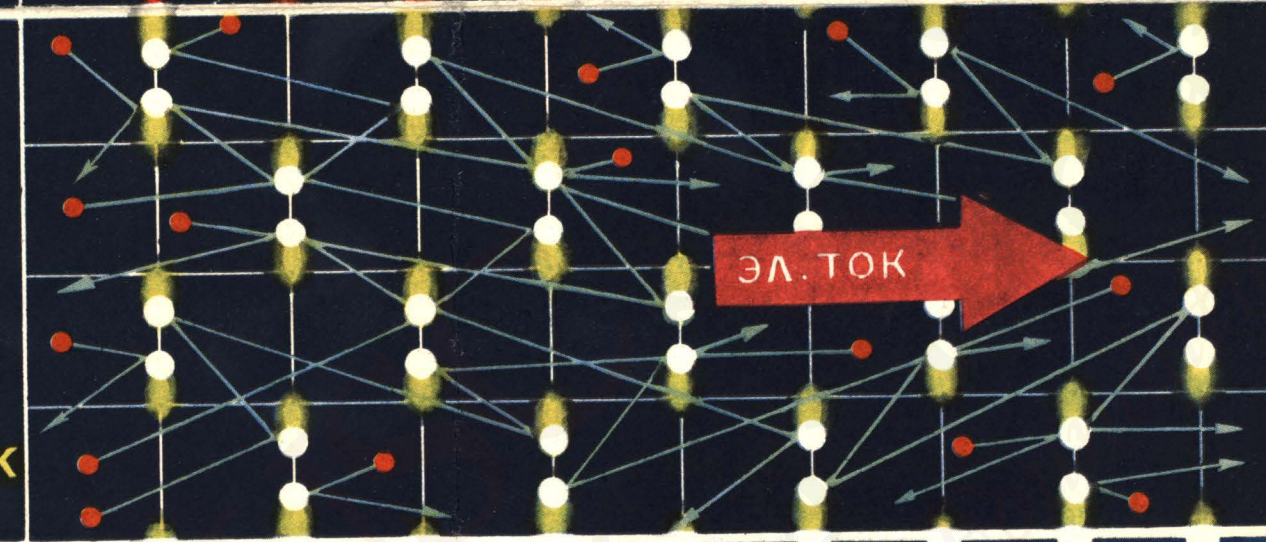
ИЗОЛЯТОР



ПОЛУПРОВОДНИК



ПРОВОДНИК



СВЕРХПРОВОДНИК



Thurs - <sup>Film</sup> - dm Lura - Bismetric condensed  
- Cables - coupons

- Letter

- 11 Pass - Knofilm

- Pick up foto

- Take Pictures Baby -

- Dum - ring hat

- Technological - Metro  
Museum - Baseball Steps

- See Pioneer Palace - Nursery

- Prosthetic dent - dentures

- Film

Send copy the letter

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PROSTHETIC INST

2 Донской переулок

г. NYA

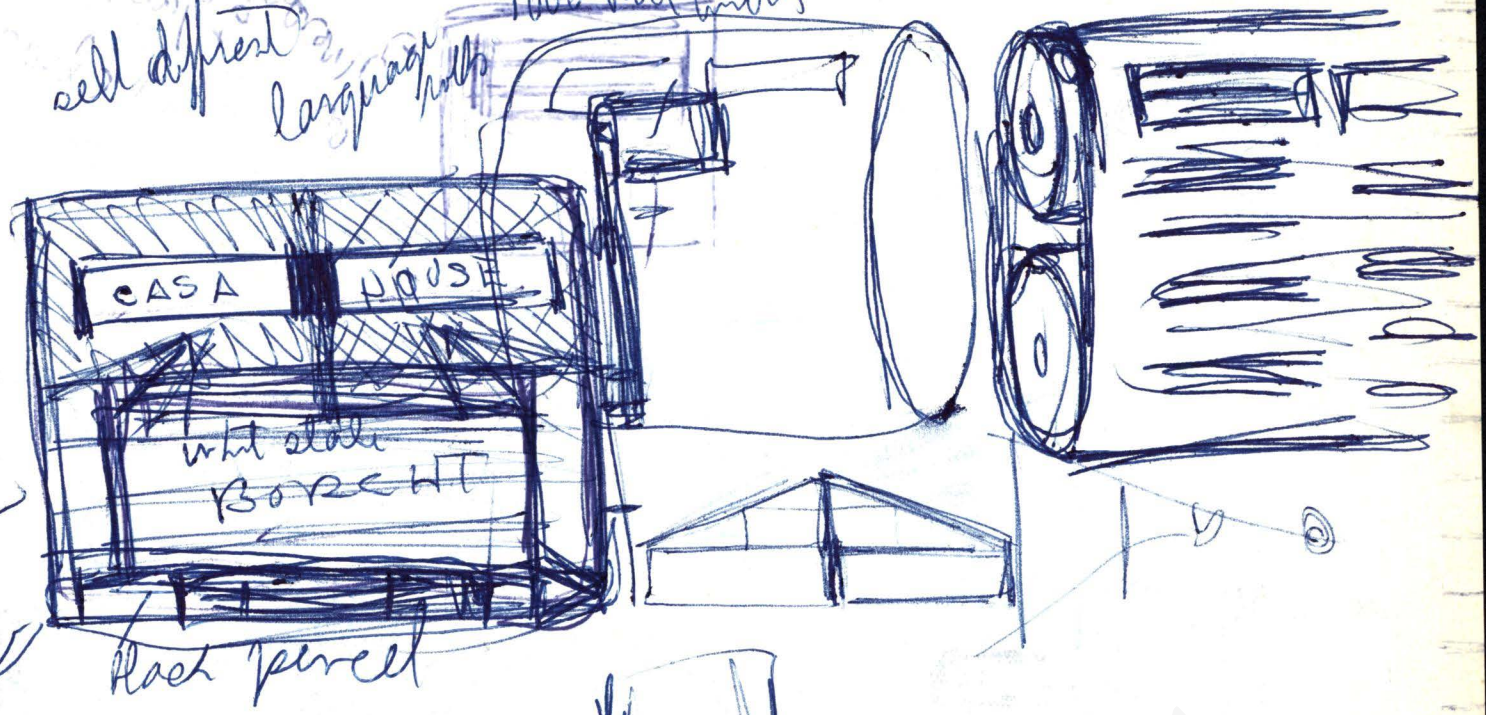
DONSKOY ST. # 4A

Trolleybus NY, 7

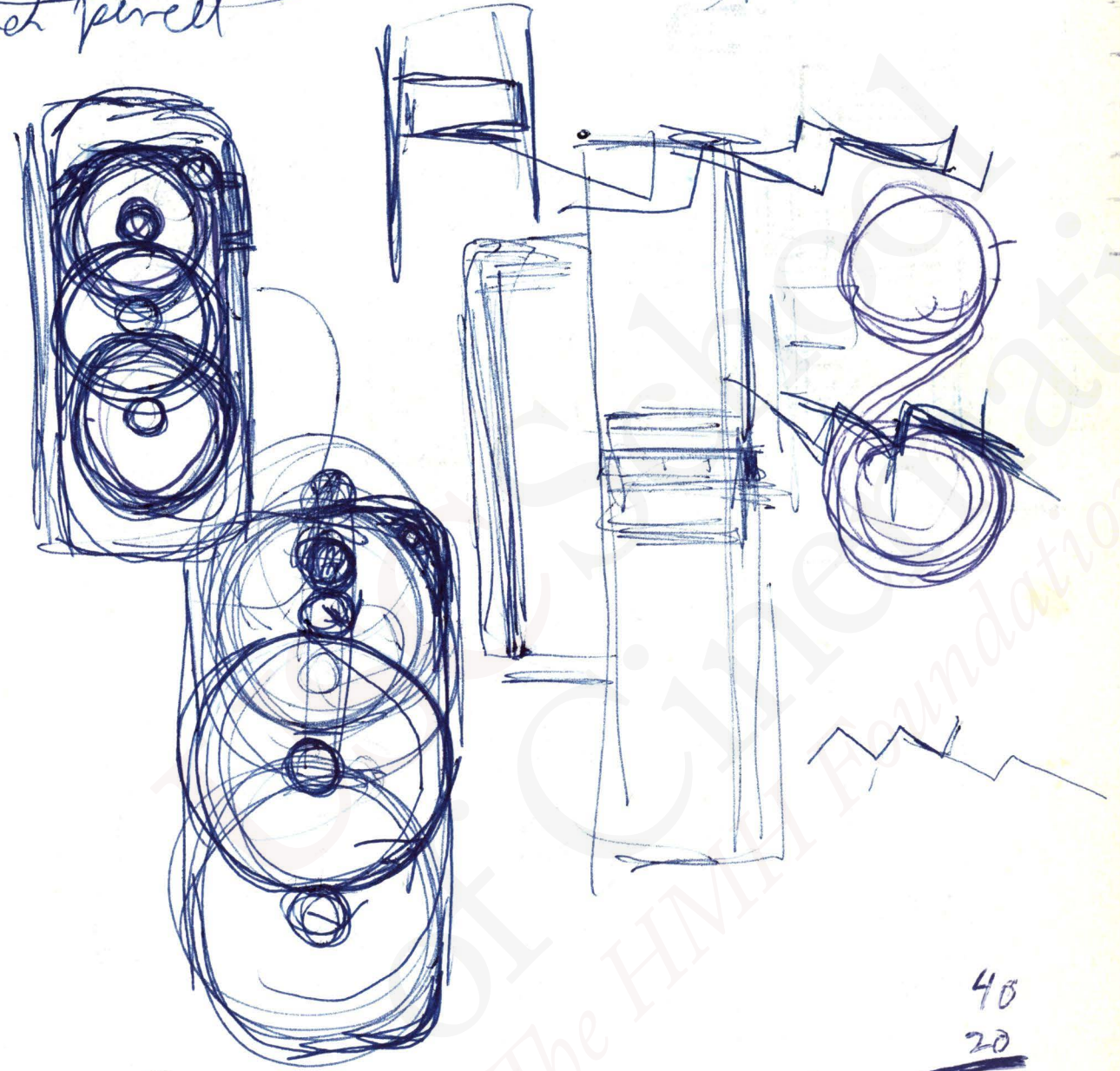
USC School  
of Cinematography  
The HMH Foundation

HANDY  
TRANSLATER

sell different  
language  
1000 old words



Rock parcel

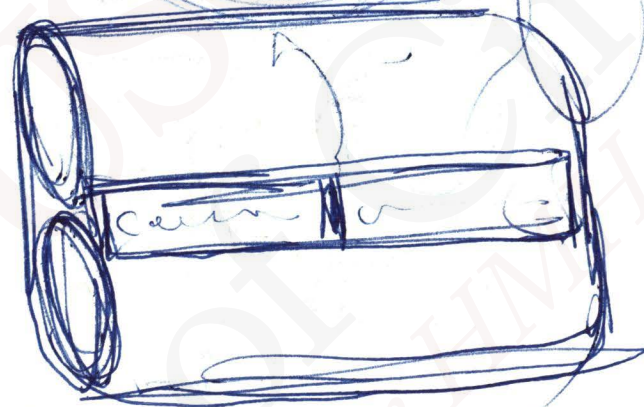
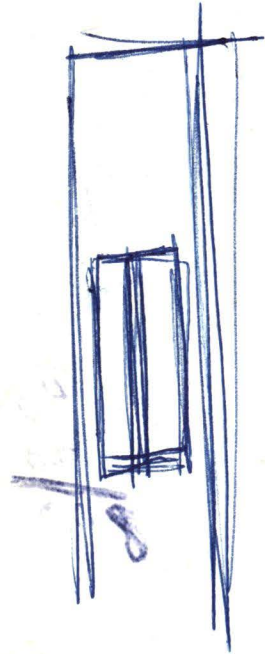
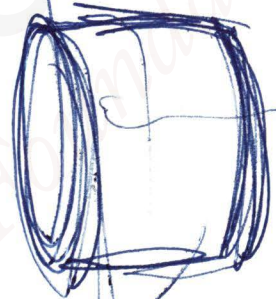
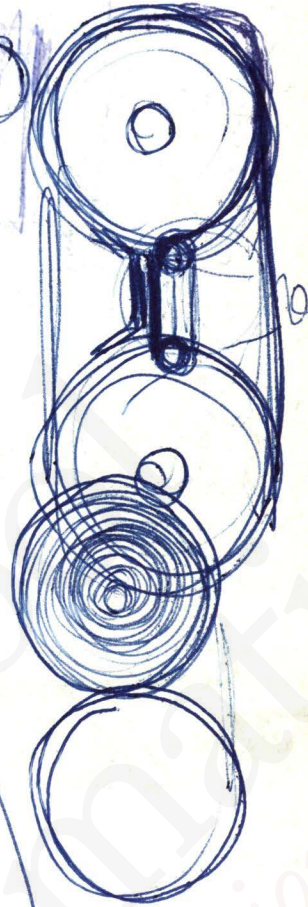
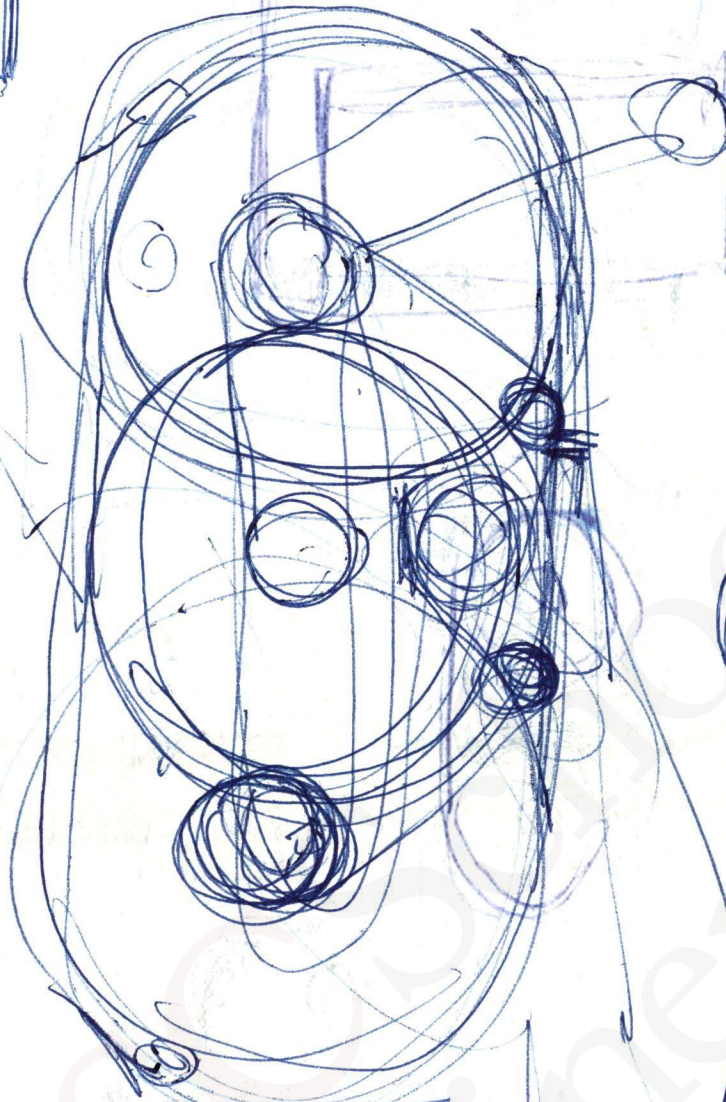
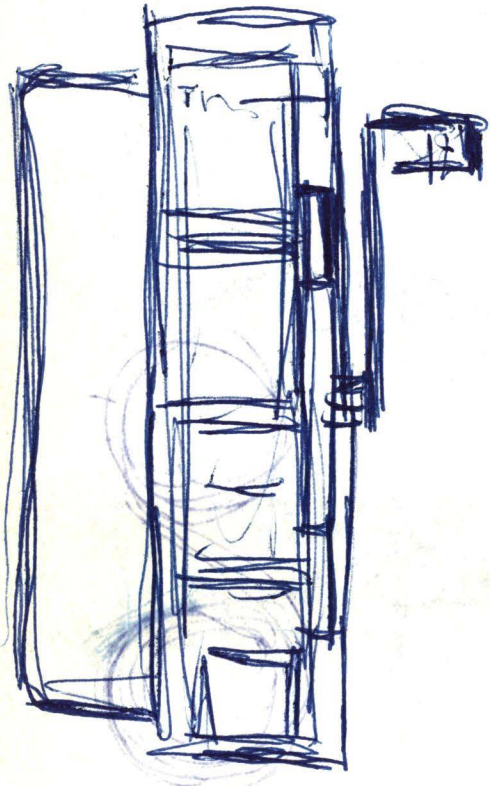
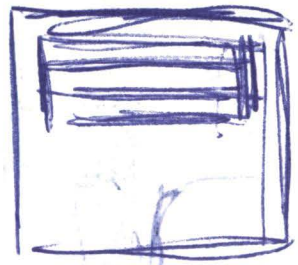
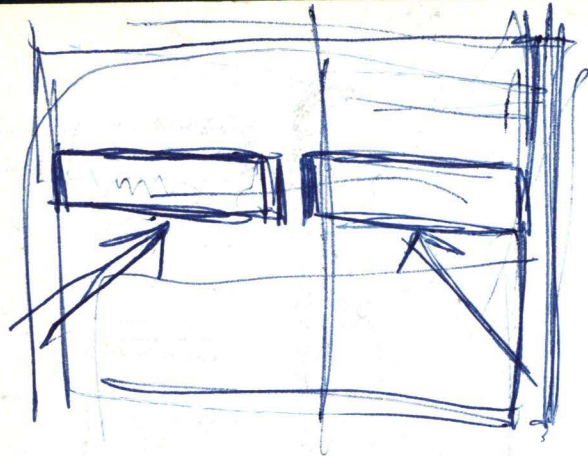


40  
20  

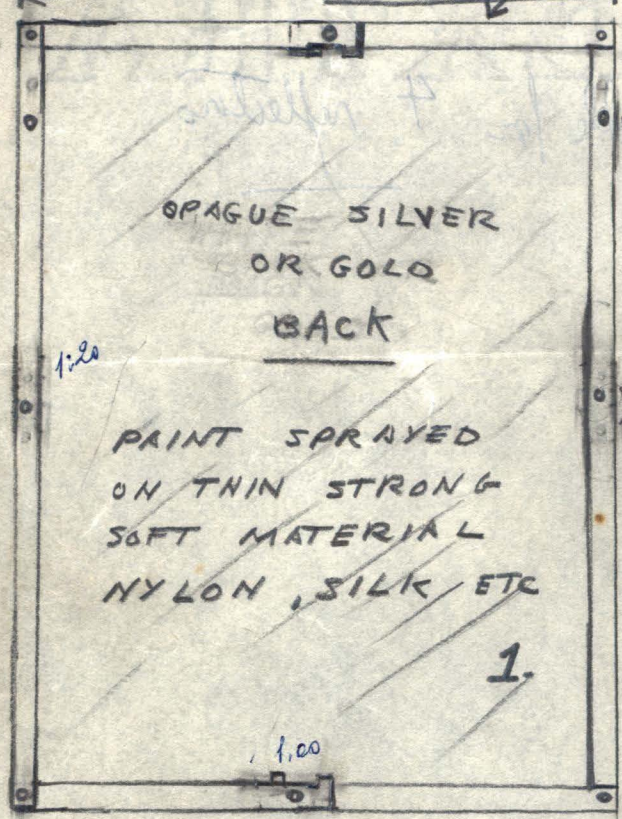
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800





SMOOTH SILVER FRONT

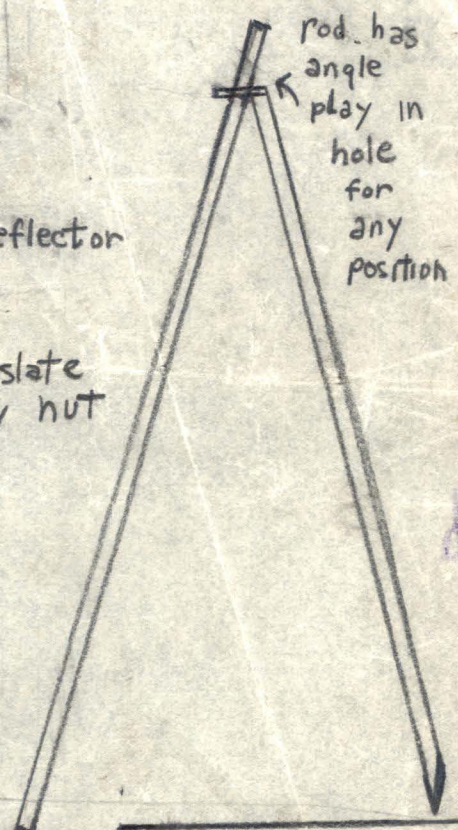


these rods are stacked in such a way (with flush rivots) that they can lie easily on top of one another when reflector is collapsed.

holder holes



Pressure plate + butterfly nut



HOLDER STAND ACCESSORY

MATERIAL MUST BE GLUED ON OUTSIDES OF STRIPS TO NOT INTERFERE

THE HEILIG ULTRA-PORTABLE SNAP OUT - SUN REFLECTOR

final stops

sink holes

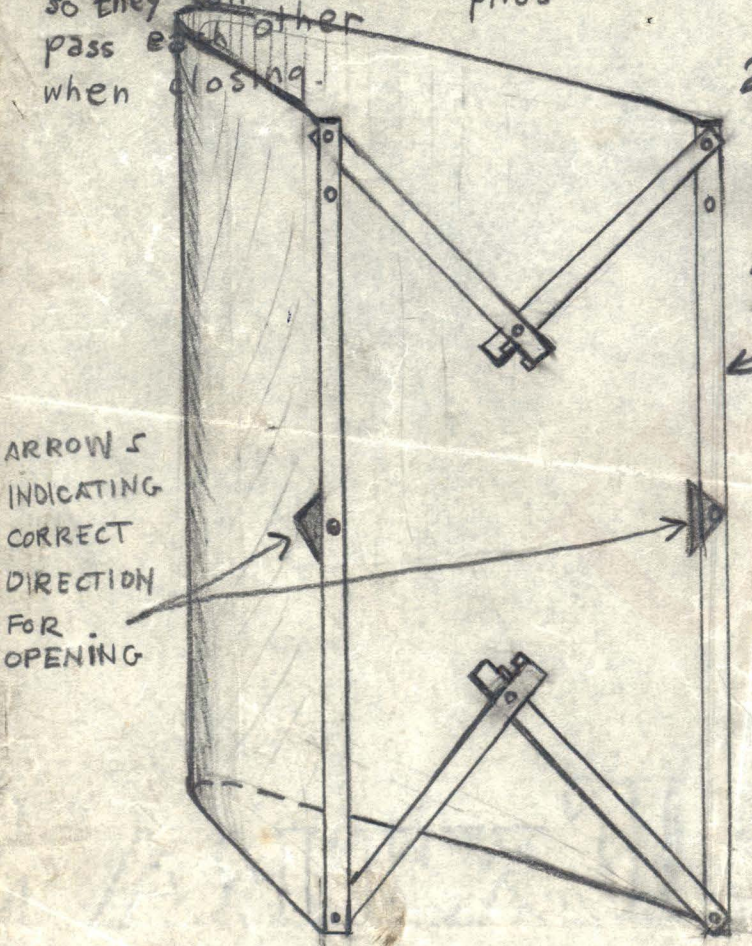
flush pivot

must be placed so they can pass each other when closing.

2.

3.

4.



ARROWS INDICATING CORRECT DIRECTION FOR OPENING

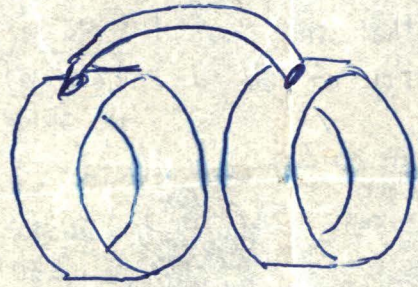
ALUMINUM FLAT RODS



big snap

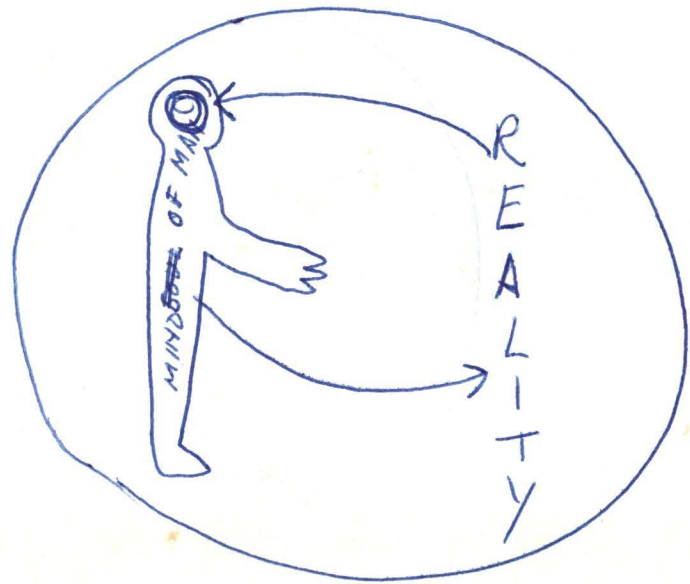
LIGHT CANVAS COVER BAG

Handle for 4 reflectors

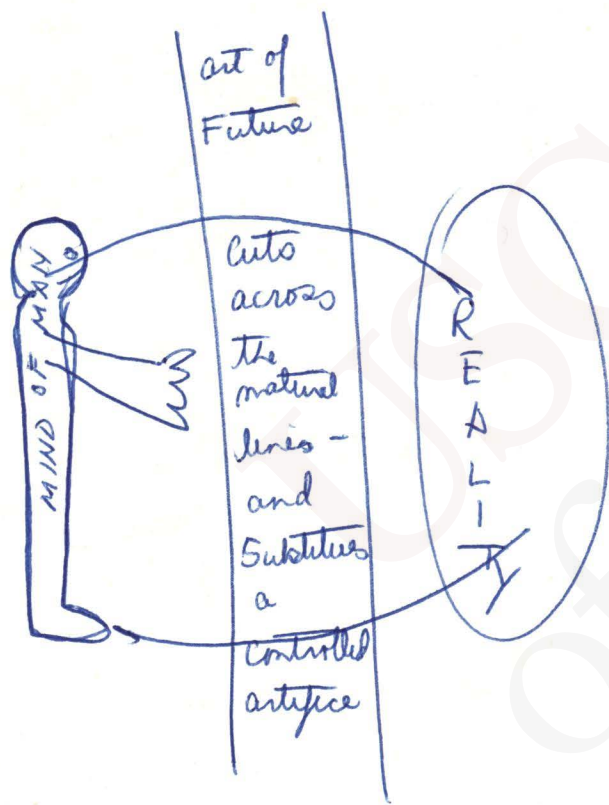


# The Communication (or art) Form of The Future

- aim - To recreate with all its dramatic force  
mans dynamic interaction with Reality.

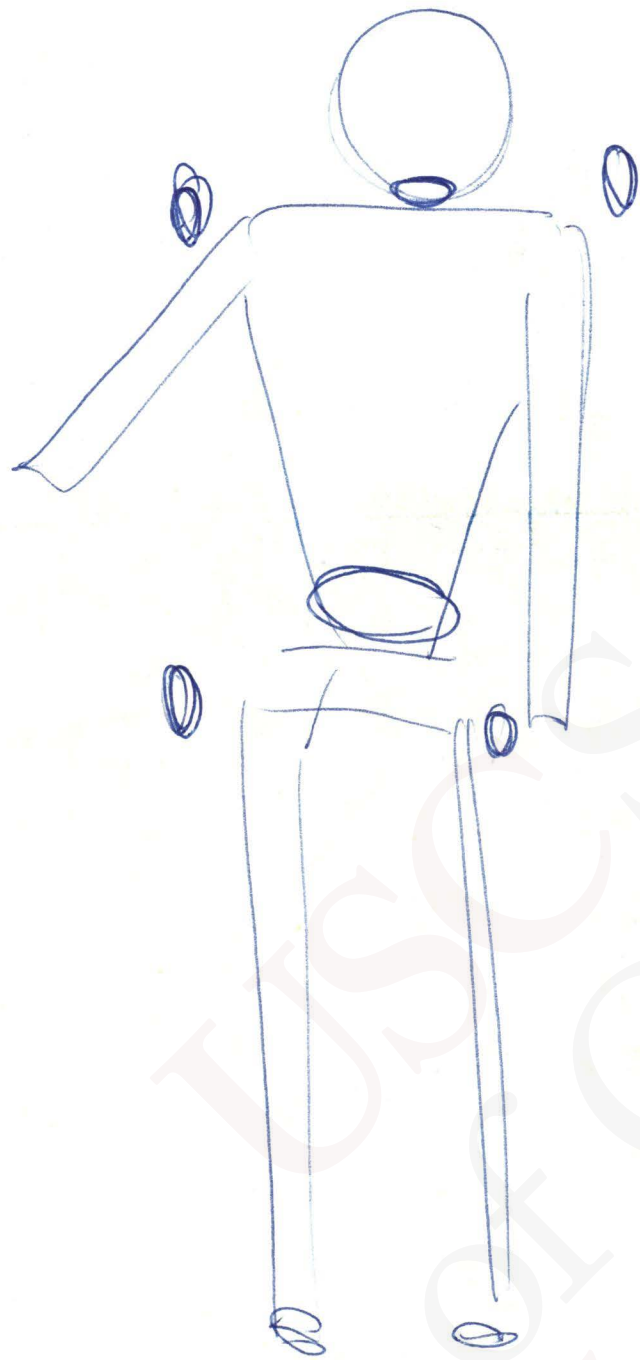


analyzed in its  
completeness

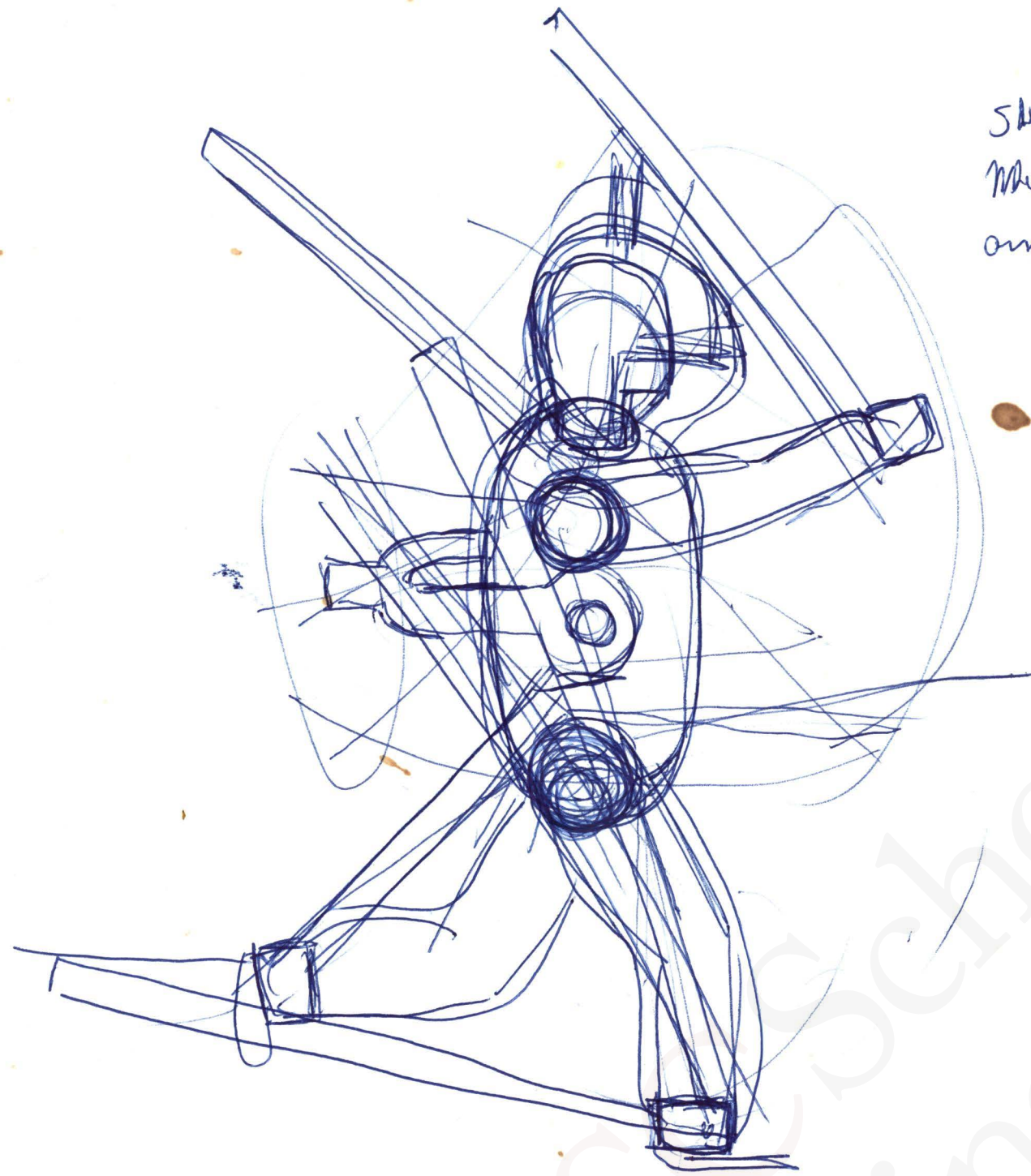


# Kinesesthetic Recording and Projecting -

Must study the <sup>many</sup> fulcrum pts of the human  
and place man <sup>shaped</sup> ~~the~~ - mechanical machine behind him



USC School  
The HMH Foundation



skit has clamps  
with mechanical  
arm look onto

Therapeutic Exercise machines

US School  
of Cinema  
The HMH Foundation

For the first time

As impact of automobile -

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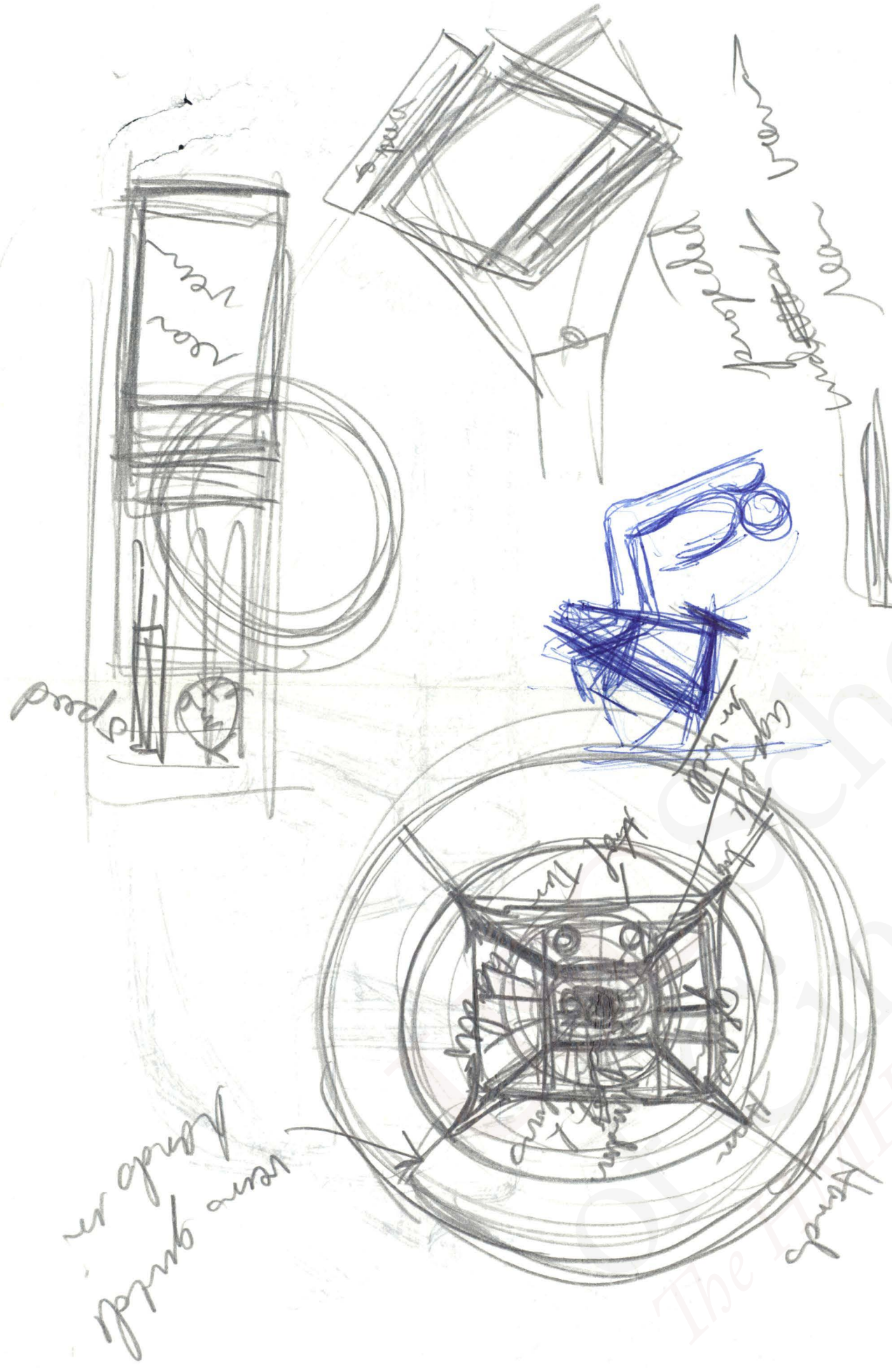
1. Saves lives

2. Saves dollars needed for repair

USC School  
of Cinematography  
The HMH Foundation



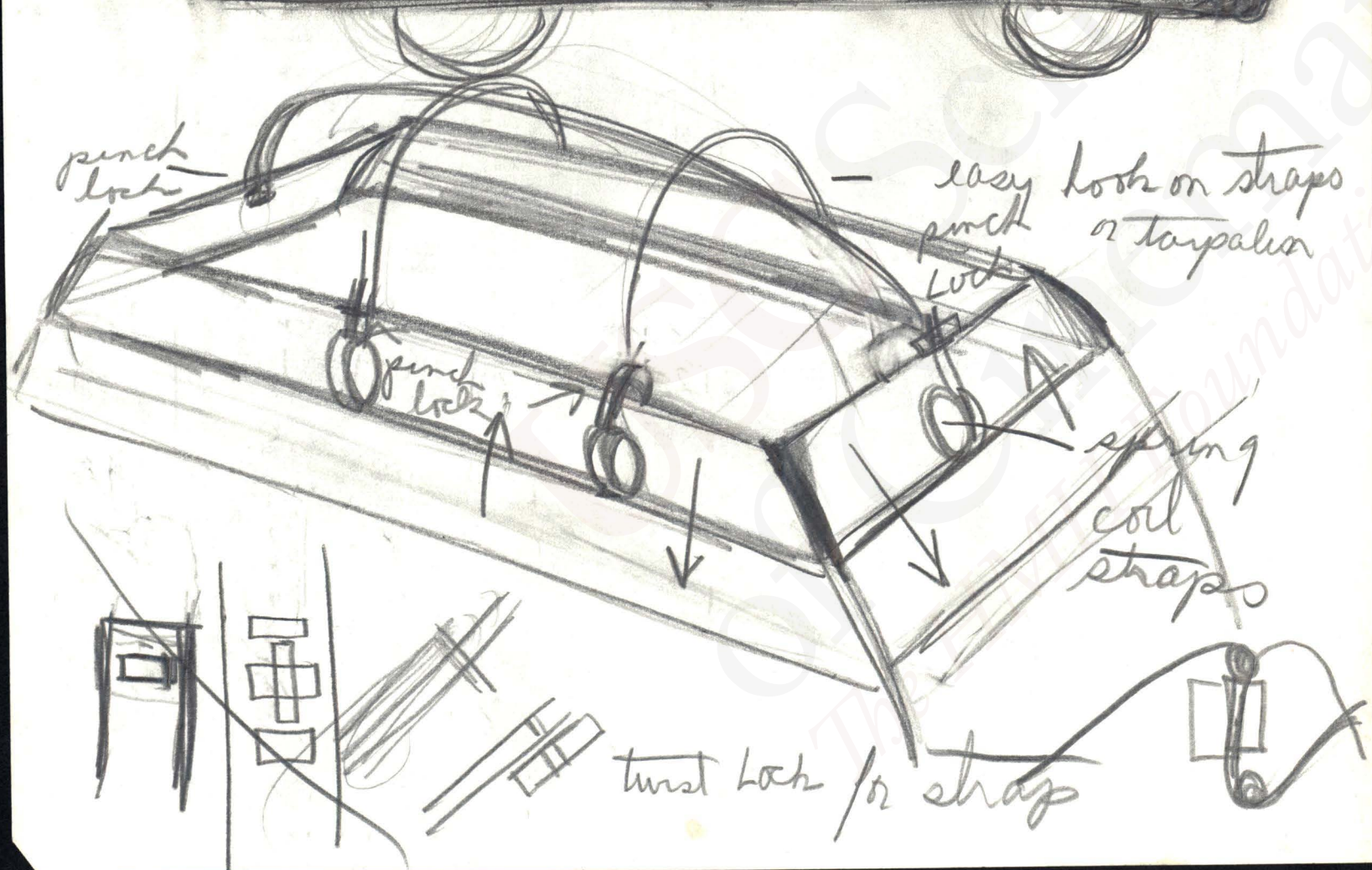
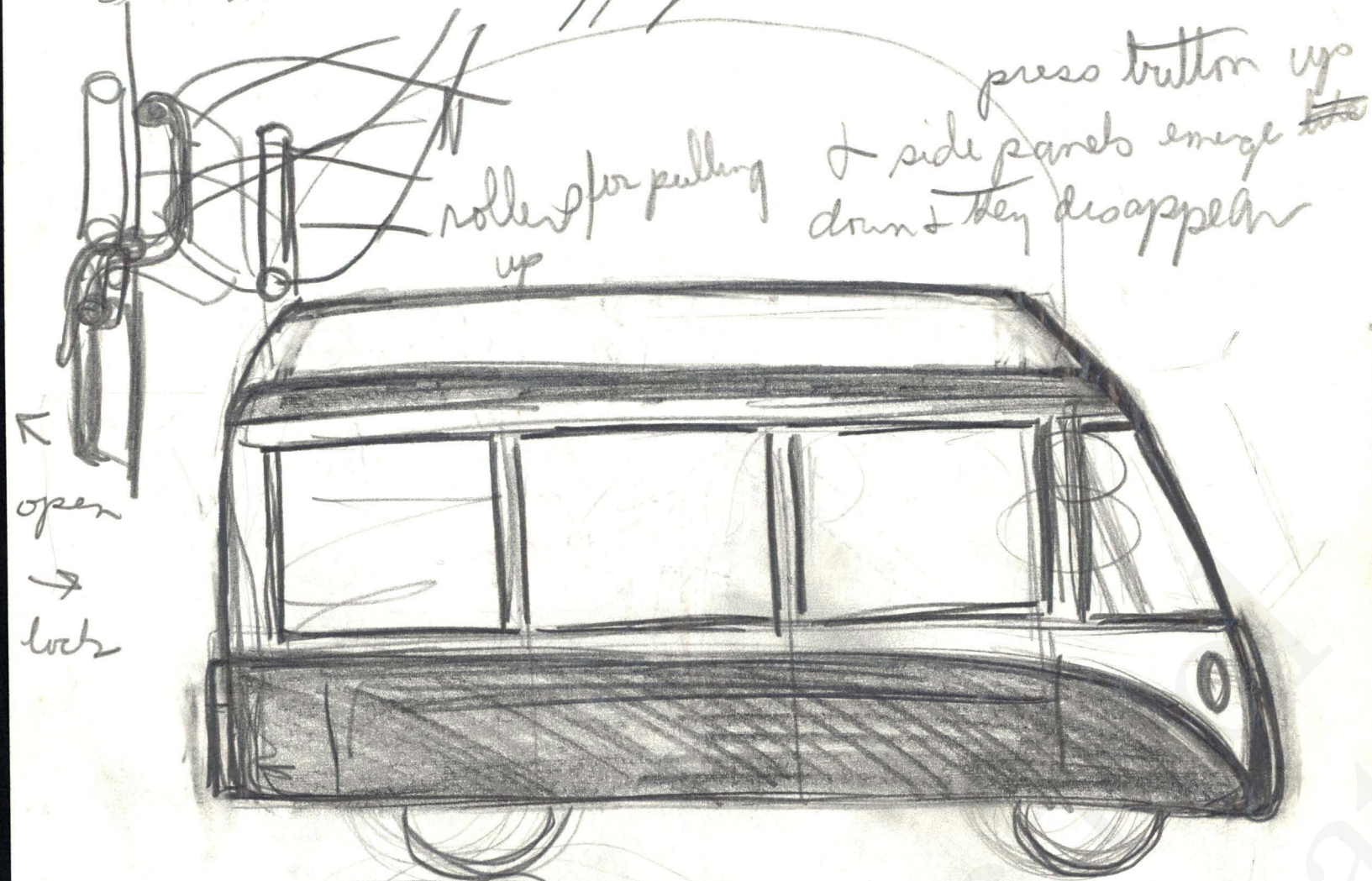


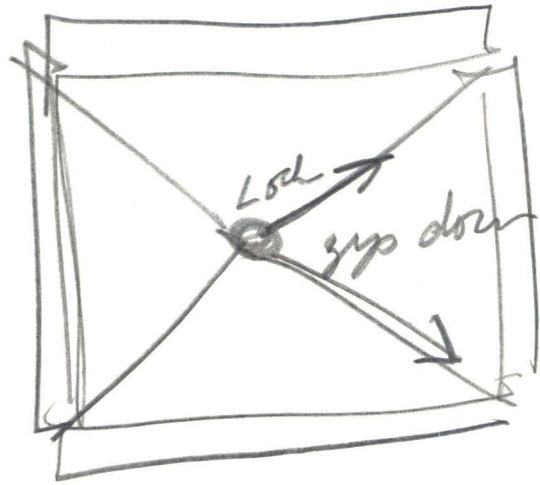


also structure sound  
guides & among speed  
function -

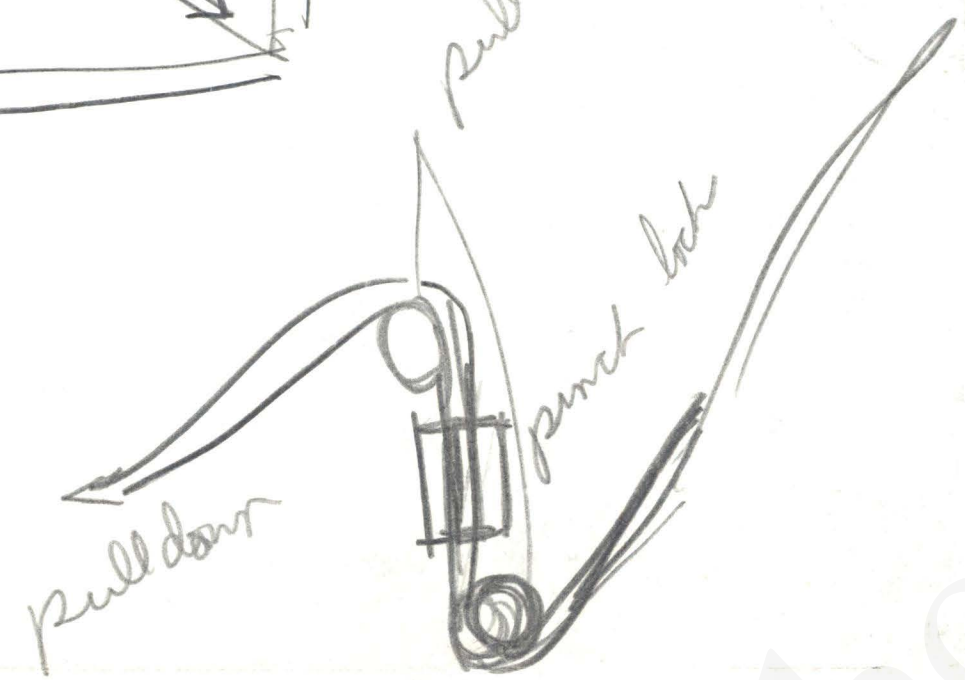
Periscope water  
for sleep driver  
Wake up. Wake  
up - stop and rep

# Automatic - Baggage Rack -

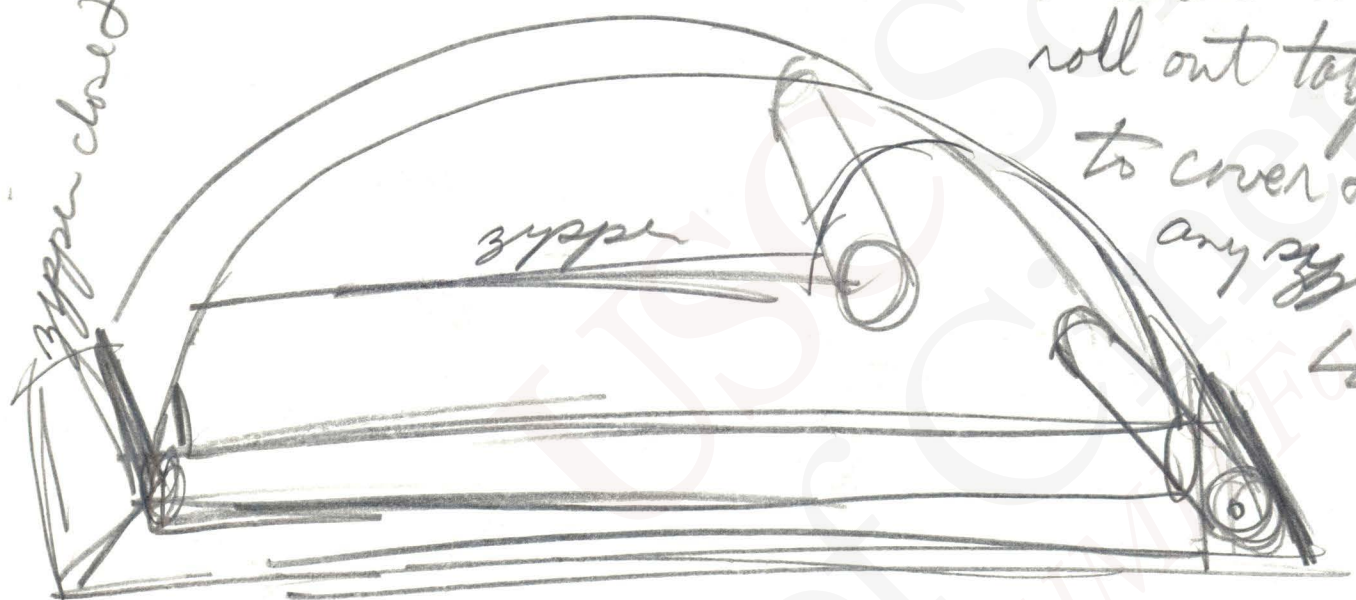




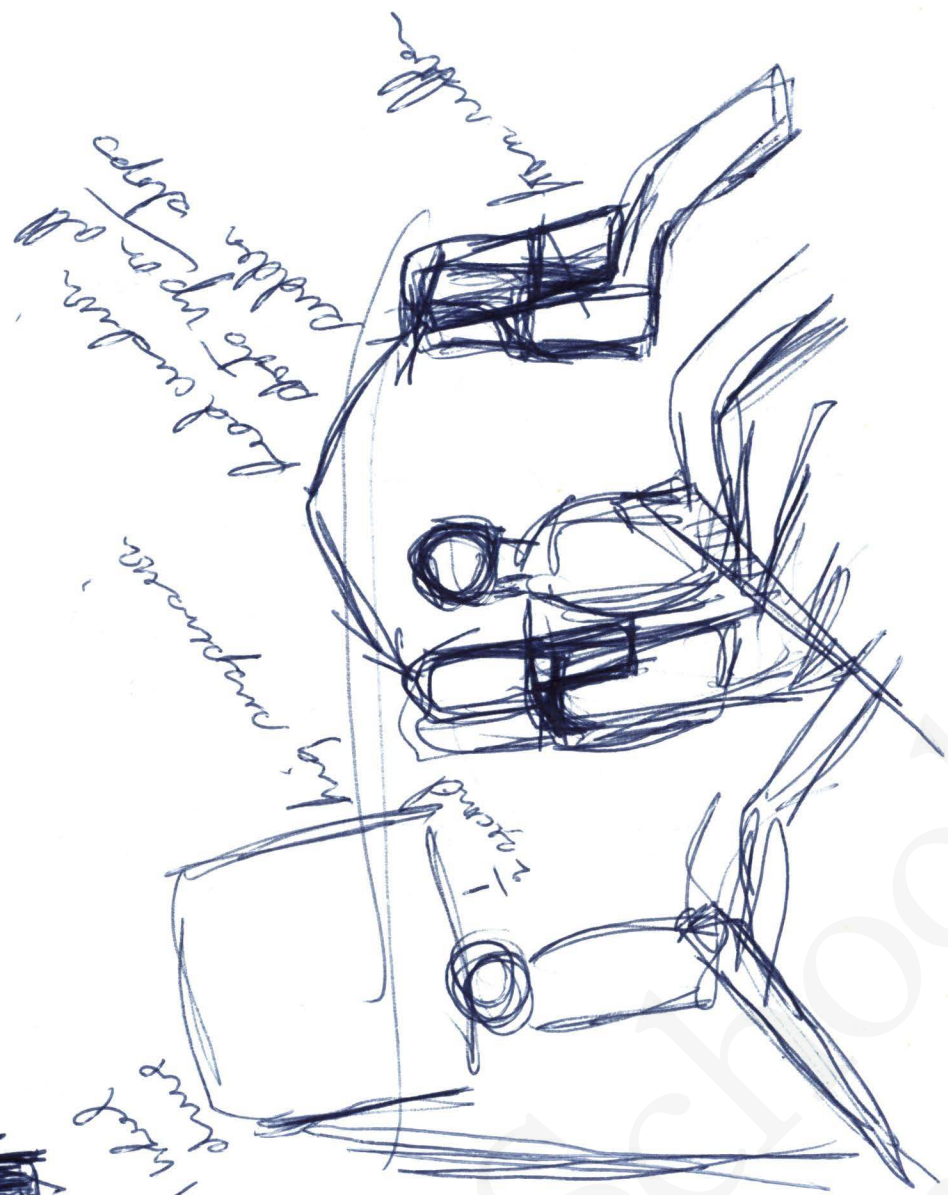
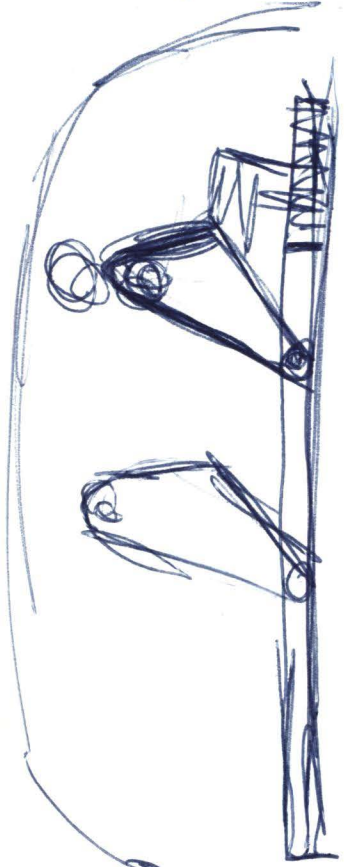
4 rollers  
pull rollers



zipper closed lock



2 retractor spring  
roll out tarpaulins  
to cover & protect  
any size top  
load



Lead cushion  
onto top of  
padding  
cushion  
from middle

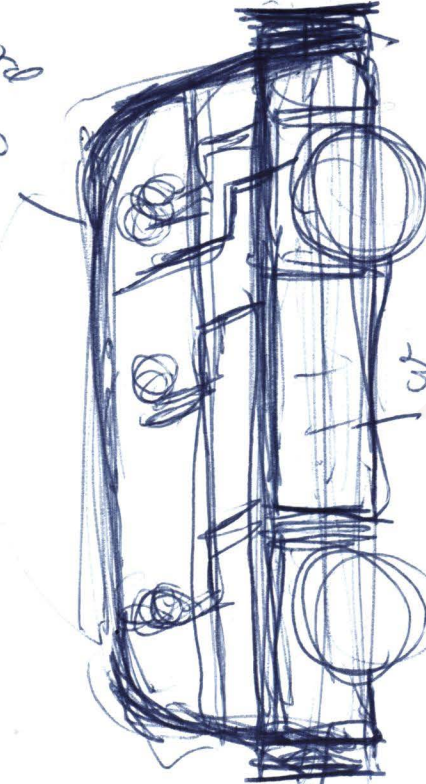
high compression

4 wheel  
drive  
steering  
control

leg

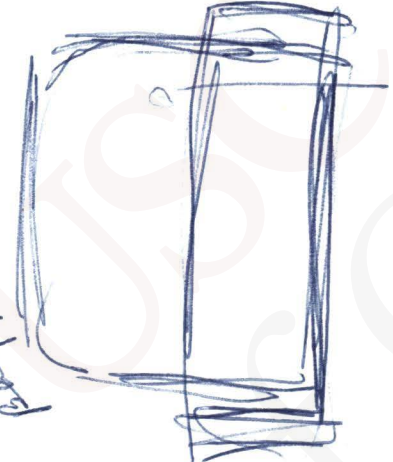
CATCH MET

low plastic



front motor

bag



Specifications  
Good Carded Camera Design

Combining best features  
of still or movie  
cameras

1. 35 mm film - fast fire Gain & TV  
controls
2. Moulded to face - ~~stereo~~
3. Direct hand grip controls
4. Holds 60-100 foot roll of 35 mm film
6. Spring or tiny battery - solar battery charging
7. 4 small turret lenses a Zoom
8. ~~Direct~~ Big Picture
9. Direct focus on Picture
10. Center line up for view
11. Direct Diaphragm setting my lens field only  
comparative
12. Rapid sequential firing - push button  
1 - ~~1~~ proper second - orange press
13. Speeds - open to 1/sep.  $\rightarrow$  1000 } better automatic  
because one  
tends to freeze  
at controls
14. Diaphragm - F. 1.9 - ~~45~~ 45
15. Build Sun shade - rotating filter disks

~~Ultimate~~ ~~in~~ ~~Camera~~

Make both eyes  
work

16 Easy loading - <sup>automatic</sup>

17 can stop & cut film without losing  
frame from exposure

No rewinding

18 Very light & Rugged

method - study <sup>patent</sup>  
~~of~~ construction  
of all existing -  
still, moving  
& ~~TV~~ <sup>television</sup> tapes

19 4 standing rods

20 Self lock for self shooting

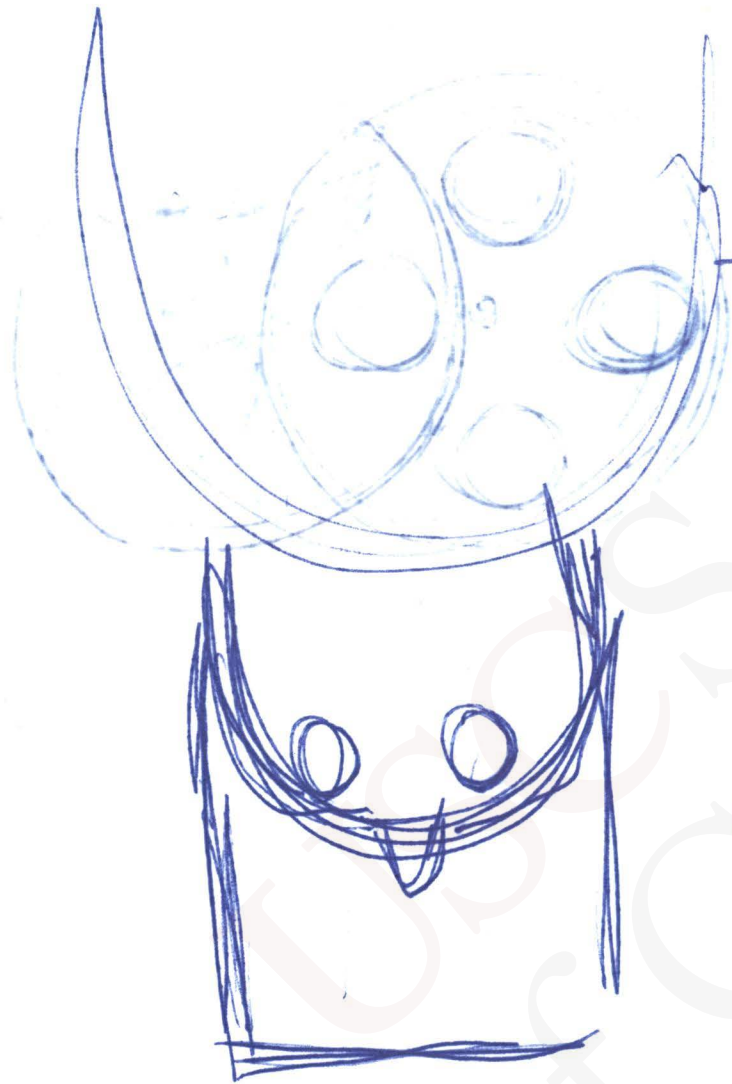
<sup>no vibration</sup>  
Then make  
wooden machine  
for ideal  
handling

21 Waterproof - <sup>anti mist</sup> needing no flippers  
excellent for under sea photo



Normal exposure time  
for hand held - moving  
1/200 sec. subject - moving  
post film out door.

Study all patents & construction of  
all ~~types~~ still, movie, TV  
camera & tapes - Paramount  
profession & military use

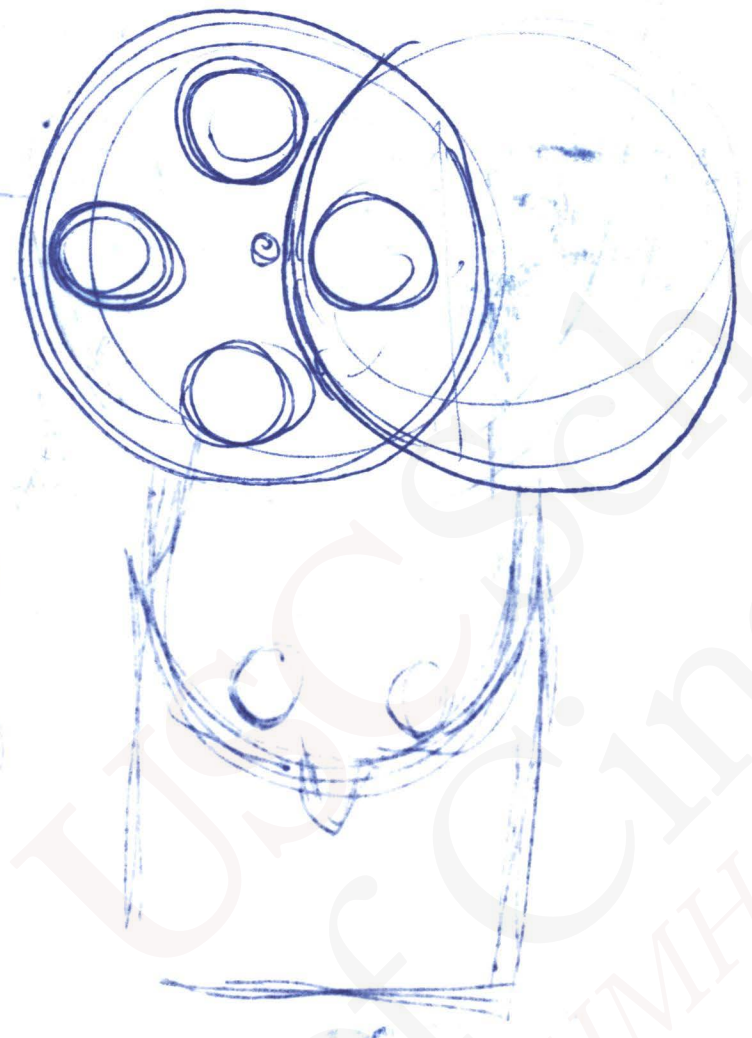


### Advantages

- ① Can catch the decisive moment
- ② Ultra fast retake
- ③ ~~to~~ Avoids need for carrying 3 cameras when covering sports
- ④ Saves film - <sup>freeze</sup> ~~stops~~ action for hand held more than novel camera

Introduction to the study of the state  
of the mind. The mind is a  
complex of ideas and feelings  
which are constantly changing.

opportunity



① New birth  
of the mind

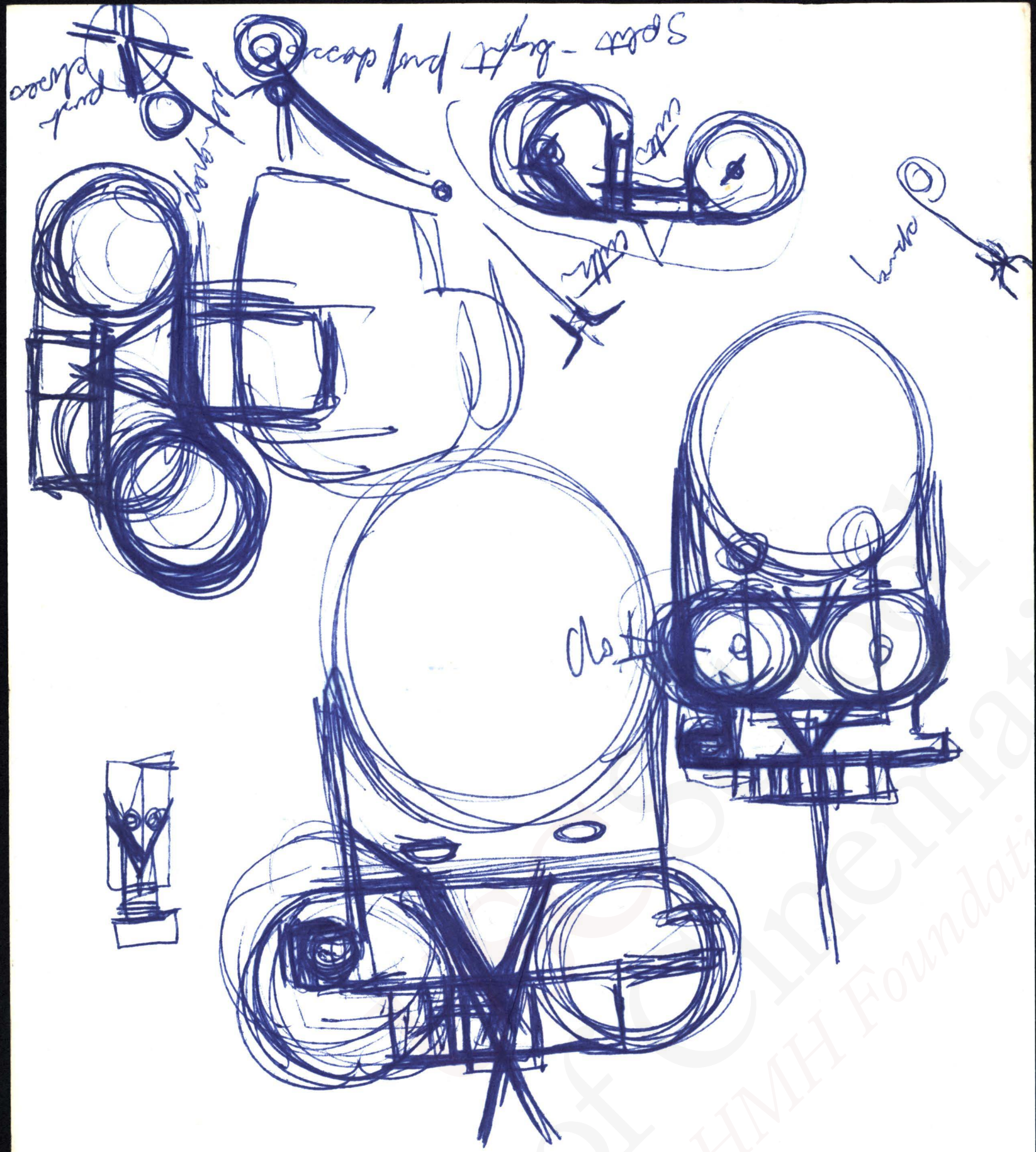
② The  
state of the  
mind

③ The  
state of the  
mind

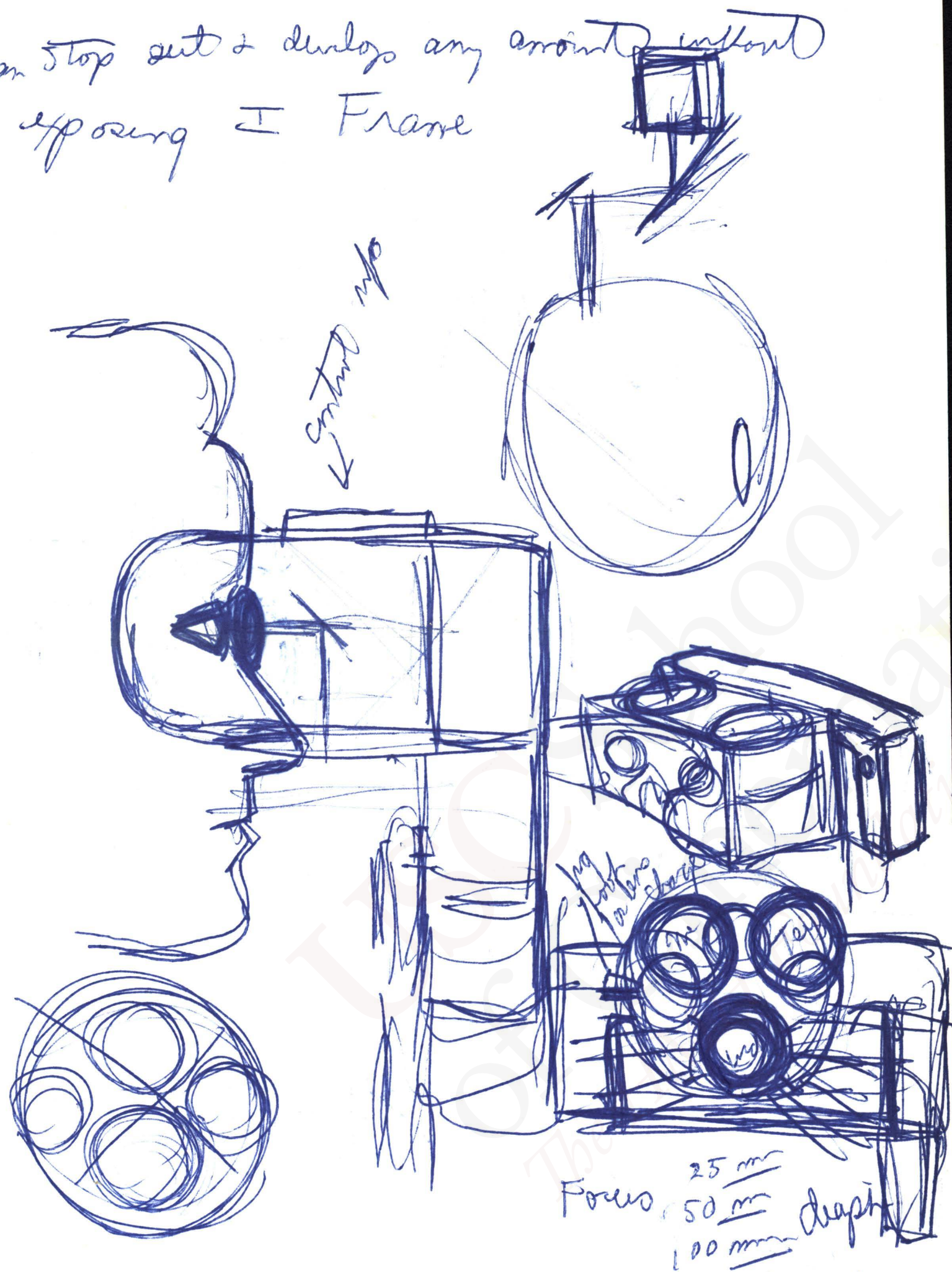
④ The  
state of the  
mind

U.S. School  
of Cinema  
The HMH Foundation





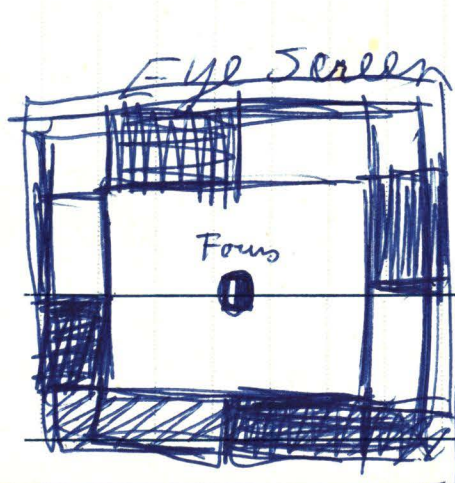
Can stop out & develop any amount content  
exposing I Frame



Focus 25 mm  
50 mm  
100 mm depth

Hand control cups  
Easy loading - automatic

Panc e coperto  
Vino



Through lens focus  
+ alignment  
- contrast

ROMA - Via Piemonte, 77 - 81 - Tel. 489.556

**RISTORANTE "MARIANO,"**  
**CUCINA ROMANA GENUINA**

## EDITORIALS

# SCIENCE VS. CULTURE

The urge to give more Americans a scientific education in a hurry has been almost sidetracked by the combative zeal of the contestants—politicians, educators and school boards. One school of thought, brandishing its slide rules and the President's new billion-dollar science teaching aid program, holds that the nation's educational problems can be solved by expanding the science courses in the schools at the expense of everything else—everything else being notably that body of literary, cultural and historical study known as the humanities. Against the slide rule wavers are massed the books, speeches and anguished warnings of the humanities advocates, ranging from new fangled sociology instructors to old-fashioned Greek teachers. The integrity of the humanities, they contend, must at all costs be preserved. If science expands too much at their expense, the humanities—and by implication literacy and civilization—will be the sufferers.

All this battling is nonsense. It presupposes the continued existence of one branch of learning called science and another called humanities in separate, self-sealing compartments. In fact, it is the separateness of these studies, almost as much as the physical deficiencies in science teaching and laboratory space, that is the trouble with U.S. education. If the schools' need for more and better science courses is clear, so is their need for more and better instruction in history, languages and literature. There is no choice to be made between science and the humanities. On the contrary, the problem, in the U.S. as in any other country, is to relate them intelligently and intelligibly to each other.

There is little to learn from the Russians on this score. A gross overspecialization is at once the inevitable product of Communism's martial education and its defect. But there is a good lesson in an all but unnoticed proposal of an American teacher, which appeared in the magazine *Science* last April, long before the Sputnik scare started threatening unemployment among the few surviving Latin professors in the U.S. The author, the late Joseph Gallant, headed the English department at Theodore Roosevelt High School in New York.

The U.S. educational problem, as Gallant saw it, is that science and the humanities are taught without regard for each other. "The most conspicuous aspect of our civilization today," he wrote, "is the pervasive and ramifying impact of science in every department of life, from household management to warfare. Yet, it is curious to observe how little, relatively, the scientific outlook has permeated our cultural life."

As late as a century ago the study of "literature" embraced

works which included natural history, philosophy, art criticism and pure science, *e.g.*, Sir Isaac Newton and Robert Boyle. But by the end of the 19th Century, as science grew more complicated, it lapsed into its own specialized language, making little effort to reach the layman. Concurrently, the "art for art's sake" school began self-consciously concentrating on the *shape* of literature rather than what it said, on the metaphor instead of the meaning.

The result is that several generations have been brought up to think of "literature" as a novel, an essay or a poem, and science as something you can only study in the laboratory (if you want to make the effort). In other ages scientific discovery deeply affected the literature of its time, from Alexander Pope through Emerson and Whitman. In our own time, although the discoveries of science have built a new dimension to man's imagination, they have hardly been deemed worthy of "literary" comment. Our culture is still "prescientific." When Rachel Carson's *The Sea Around Us* came out a few years ago, it startled the critics precisely because it combined good science and good literature.

Gallant wanted to let science back into literature, and teach it correspondingly more widely in the high schools. The lack of advanced courses and lab equipment should not stop secondary schools from putting on their literary reading lists recognized works of popular, yet authoritative literature in fields like anthropology, astronomy or geology. Such works are increasingly available, *e.g.*, Fred Hoyle's *The Nature of the Universe*, C. W. Ceram's *Gods, Graves and Scholars*, Lincoln Barnett's *The Universe and Dr. Einstein*—and they often get on the best-seller lists. There is no reason why they should not be the subjects of book reports (where these old-fashioned writing exercises are still required) of equal importance at least with once contemporary documents like Burke's speech on "Conciliation with the Colonies."

Gallant would include more attention to science in art and history courses. All this new emphasis he felt could give students a feeling for the scope of science, which would stay with them through the often discouraging detail work of laboratory classes. It would also acquaint those who would later go into other fields with the factor that is molding their civilization. By putting science into "our everyday attitudes and dealings" we would solve the problem of student interest early in the game. As he put it, "Students must be attracted to the study of sciences, not *after* they are enrolled in science courses in the colleges, but *before*."

!!!



IN KATMANDU MISDIRECTED MASTIFFS ARE HELD BY SHERPA AFTER TREK

## MASTIFF MISTAKE



TIBETAN TERRIER

It all started simply, but before everybody was through it had become the shaggy dog story of the year. It seems that a dog fancier named Thomas Stephens, a former aide in the White House, asked U.S. Ambassador to India Ellsworth Bunker if he could get Stephens a pair of Tibetan terriers, a type of unkempt lapdog. Well, by the time inquiries went out through India and Nepal into Communist Tibet, the request got garbled so that a man in the White House had become *the* man in the White House, and Nepal was sending President Eisenhower not a pair of Tibetan terriers but a pair of Tibetan mastiffs, which are a great deal larger. The mastiffs were guided out of Tibet by a Sherpa and flown to the U.S. There they consumed eight pounds of meat and two quarts of milk daily. Then one of them produced three puppies. But dog fancier Stephens had already found them a good



## MORE ENERGY IN NEW FUELS

Already in use are rocket engines that can propel man beyond the barriers of atmosphere and gravity. New, high energy fuels are being devised to give added power to these engines. But for interplanetary travel, an entirely new kind of rocket engine is necessary and is being worked on.

Conventional chemical fuel engines are designed to burn their fuel supply in three minutes or less to develop enormous speeds needed to overcome the resistance of gravity and atmosphere. But in outer space, where there is no air resistance to motion, speeds as high as 100,000 mph are possible using engines of low thrust—engines which allow a virtually inexhaustible fuel supply. For this purpose engineers are developing ion engines (*top, right*). These obtain thrusting power from a stream of charged atomic particles called ions. An almost endless supply of them can be obtained from atomic fission, atomic fusion or solar power.

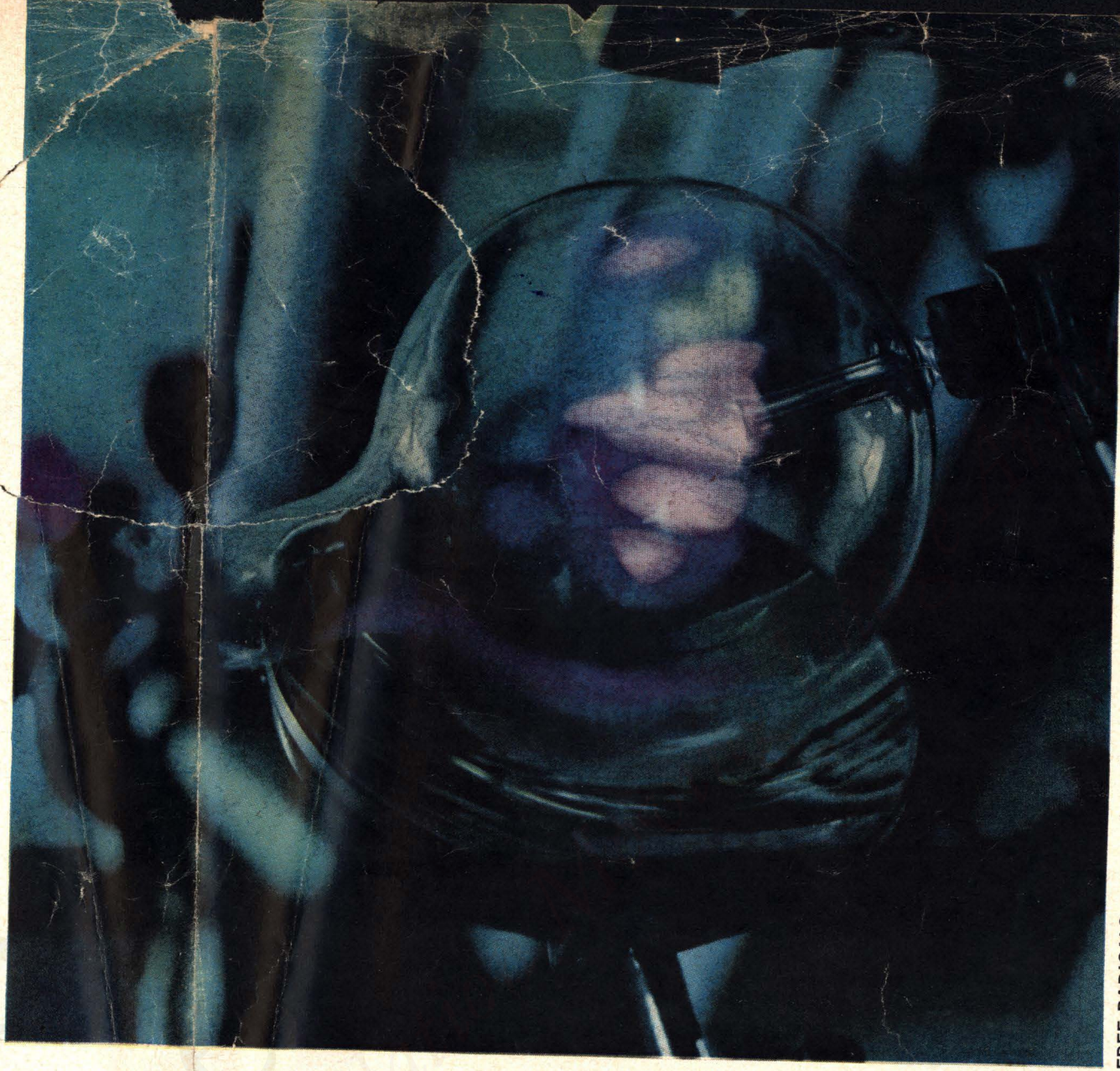
Suitable energy could also be derived from atoms or groups of atoms called free radicals (*right*). These are formed when a molecule is split, freeing its atoms from each other. In recombining, they release enormous energy. Free radicals could be created on earth and carried into space or they may be added to chemical fuels.

The ultimate spaceship, however, could be powered by light rays streaming out the rocket's rear. Light rays are streams of infinitely small particles called photons. Their force is minute, yet the photon propelled ship could approach the speed of light—186,000 miles per second



**ION ENGINE** at NACA lab spins a tiny turbine (*right*). The purple jet of ions, created by high voltage electricity, is accelerated out rear of engine by

the magnets above and below the jet. Though ion stream's thrust is only 4,200th of a pound, it could move a ship through frictionless outer space



**FREE RADICALS** are created as a lavender flame in a glass vessel at National Bureau of Standards, Washington, D. C. Molecules of nitrogen are being

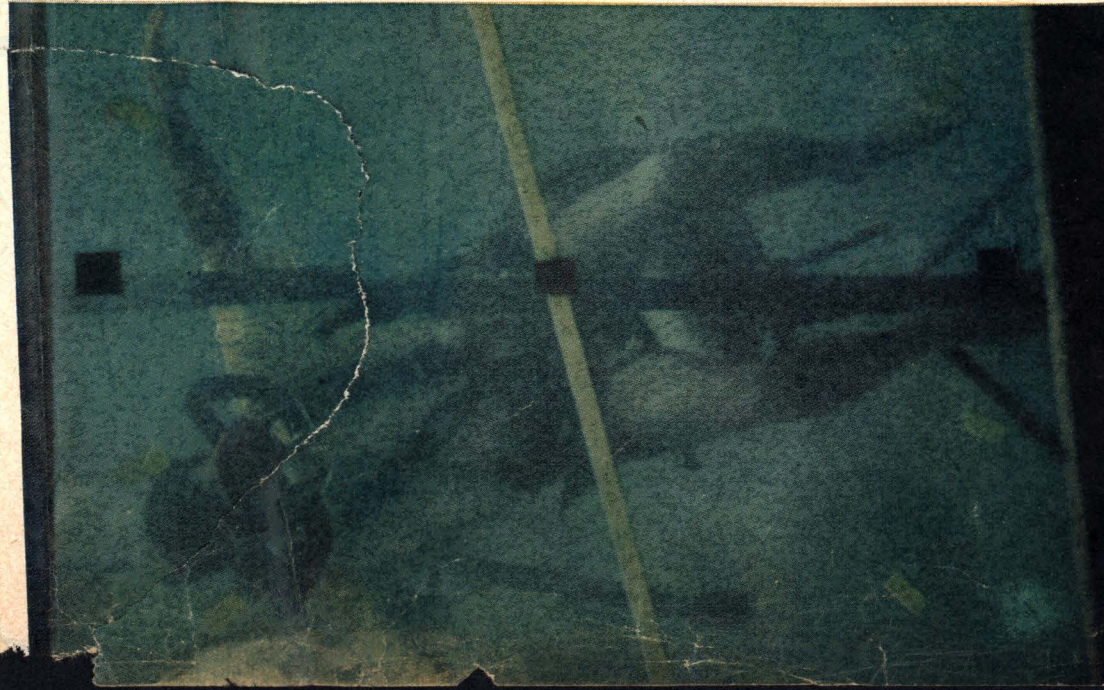
split in half, making two free, extremely reactive nitrogen atoms called radicals. When they recombine to reform nitrogen gas, energy is released

CONTINUED

SPACE FRONTIER CONTINUED



"MOON SUIT" is worn by men erecting transmitter to show flexibility. Inflatable suit, developed by Navy for altitude flight, would work on moon



WEIGHTLESS MAN simulates state by floating in salt water of same specific gravity as his body. Blindfolded, he sits at angle, thinks he is vertical



WEIGHTLESS MANEUVERING is practiced by man on disk which is supported on air jet, moves without creating friction (in space, weightlessness

eliminates friction). If he tries to rotate body by twist of feet, frictionless disk rotates so he does not move. Here he turns by circular motions of arms





FEB I, 1958

IF LOST  
PLEASE RETURN TO

MORTON L. HEILIG  
% AMERICAN EXPRESS Co  
PIAZZA DE SPAGNA  
ROME, ITALY

OR

128 W. WALNUT ST.  
LONG BEACH, N.Y.  
U.S.A.

THANKS

Man and Robot - in sensory communication

Human Perception exists within a certain range of dimension. It is theoretically possible to create complete sensory robots on a variety of dimensions beyond those of normal man - so that he can sensorially project himself & physically react with environments that are completely foreign to him.

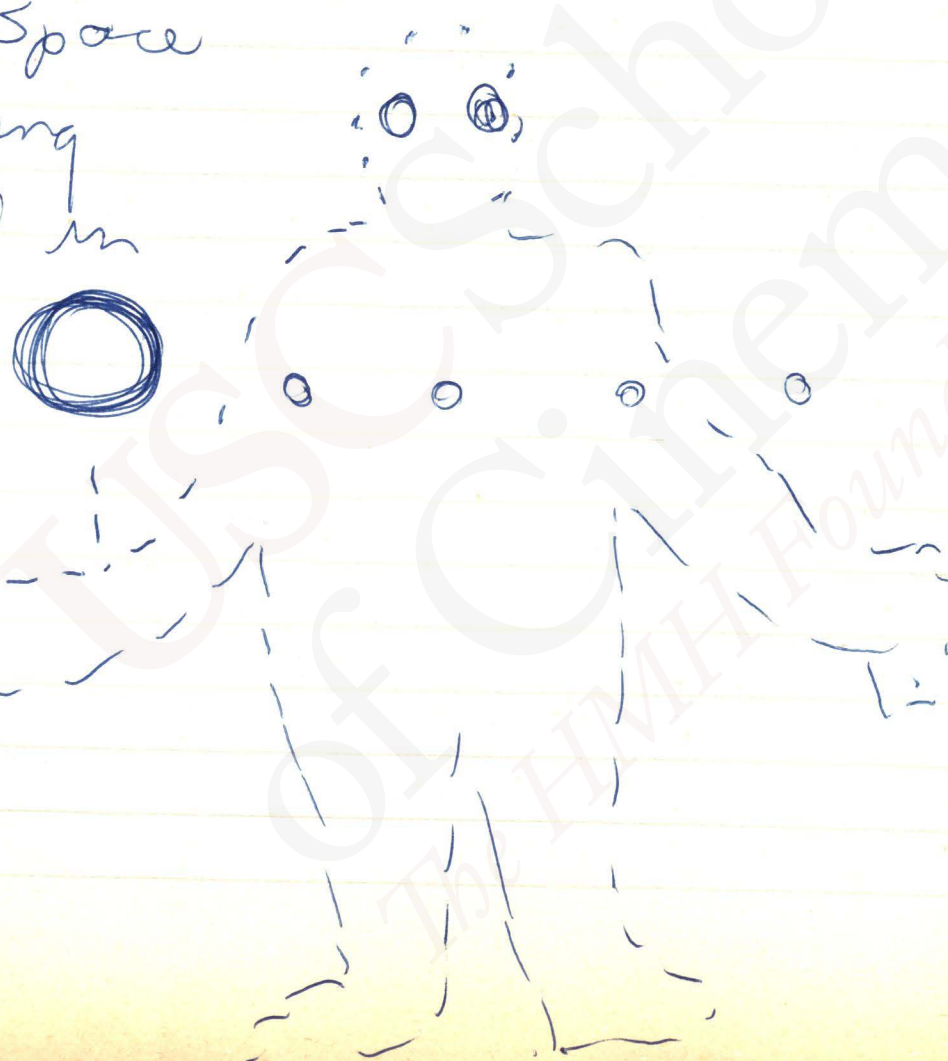
For example if through extreme miniaturization we created sensory robots the size of an ant it could walk into an ant colony - looking like a man or disguised as an ant & man could observe them - wrestle with them work with them - possibly learn to communicate with them.

If the robot could be made smaller man could travel into colonies of microbes - amoebae -

We have the beginning of larger sensorial robots in our giant guus - using dove sets etc.

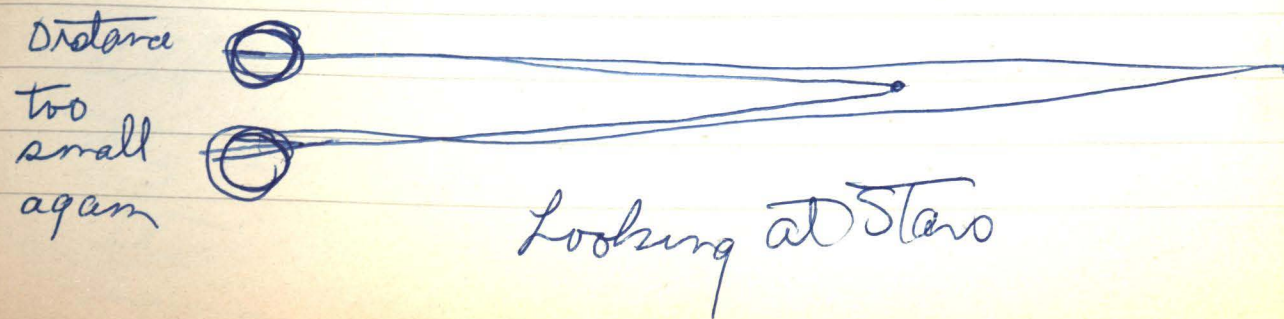
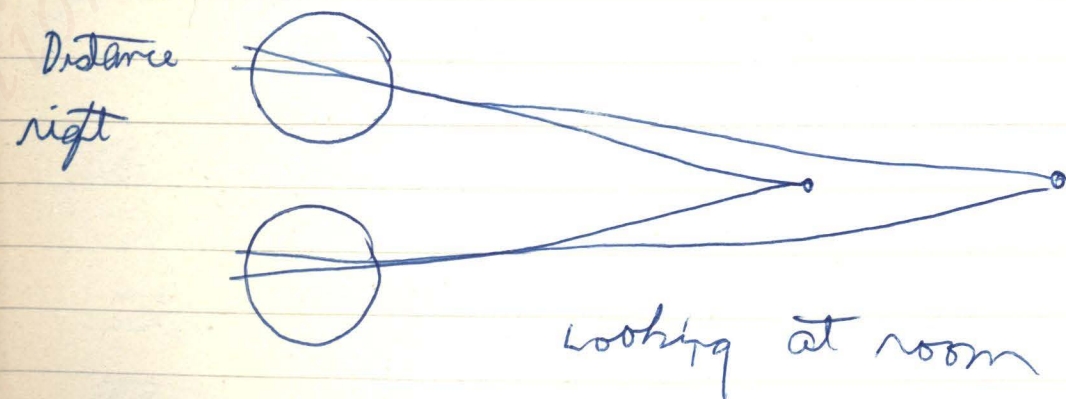
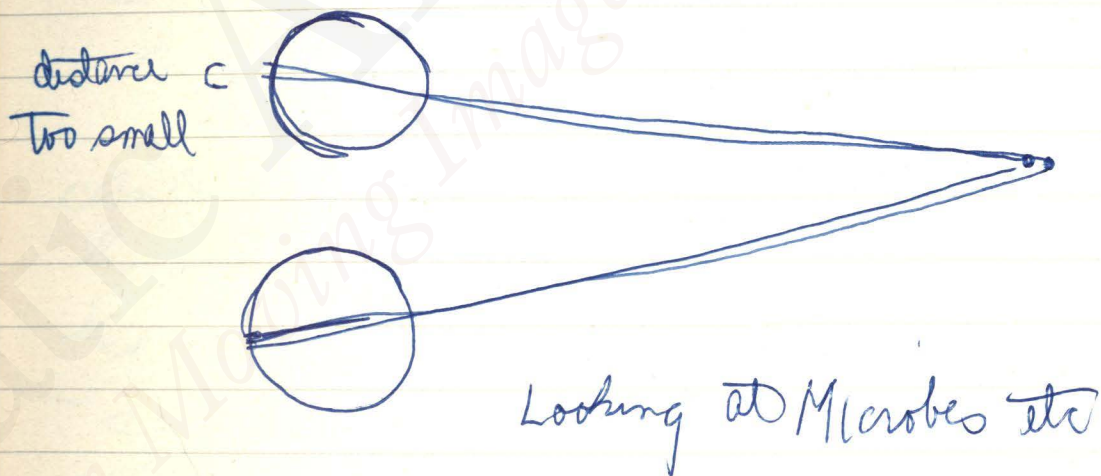
But supposing we had space ships each carrying a "nerve end" set themselves in a man like formation in space - then we might begin to shrink the universe to our several dimension and through clever feedback editing get the fantastic sensation that we are moving planets around the way we do oranges.

stationed space ships radiating information in to people wearing sensorana suits on earth

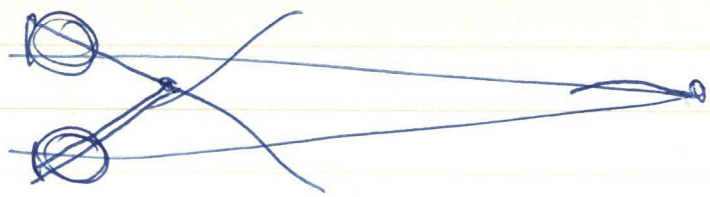


To send 30-2 pts must lie on retina retinas of the two eyes within a given range of discrepancy if it is either more or less - the sensation of 3-0 is not received.

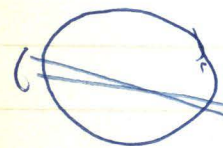
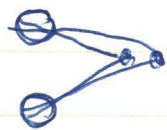
For example



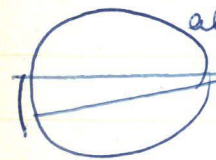
Distance too  
great - near  
image as a  
blurred double  
image



But if have tiny eyes  
with tiny displacement  
~~retinal~~ separation of  
pts on the retina so  
just right hence see 3-D again



For stars if have  
enormous separation between  
eyes - See 3-D again



The same dimensional considerations  
should apply to all senses.  
Sound, touch etc.

Also fascinating results may be  
obtained by reaching into areas of  
energy recording impossible for the  
natural human system - infra red  
perception, heat perception & ultrasonic  
i.e. magnification or transfer into the  
human range

Interesting results may be obtained  
by sensory crossing. i.e. by having  
"see" sound and hear light /  
- smell heat and feel the pressure  
of odors

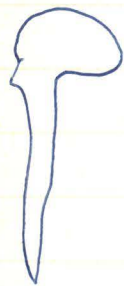
Also we might adjust the  
range sensitivity & placement of  
two robotic senses to duplicate  
those of animals - so we could  
liberally sense the world the way  
they do in their sensitivity ranges  
etc. - & maybe learn to talk  
their language.

The robot's "Time" dimension can be easily controlled by varying the speed of its tape "memory recorder".

Speed variations of tape could be enormous - & controlled by man in sensorama suit.

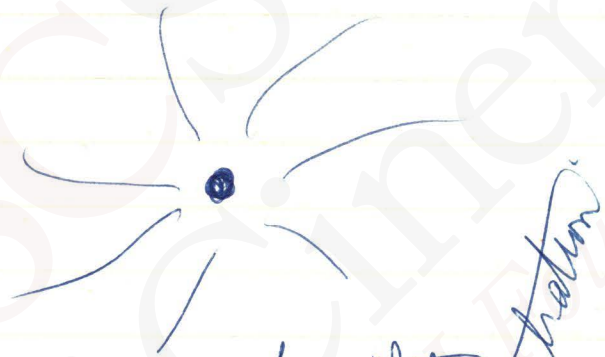
The Sensorama Robot & Sensorama suit stand between -

~~the soul~~  
The Unified Soul of Reality &  
The Unified Soul of Man -



Soul of Man

Receives &  
Transmits  
energy



a piece of reality  
gives off or  
reflects energy

concentration

To give easily & quickly the same sense of  
identity & contact as artist has only open intense  
Effective interaction - the fundamental  
condition of requisite for learning

The Sensorama Robot & Suit must keep abreast of the latest findings in Physics, Physiology & Psychology

Learning from Yoga to create intense consciousness of reality - internal discipline of energies and profound physical development of the nervous system - particularly the cerebral cortex.

a great instrument for the rapid development & transformation of man into a highly civilized creative being.

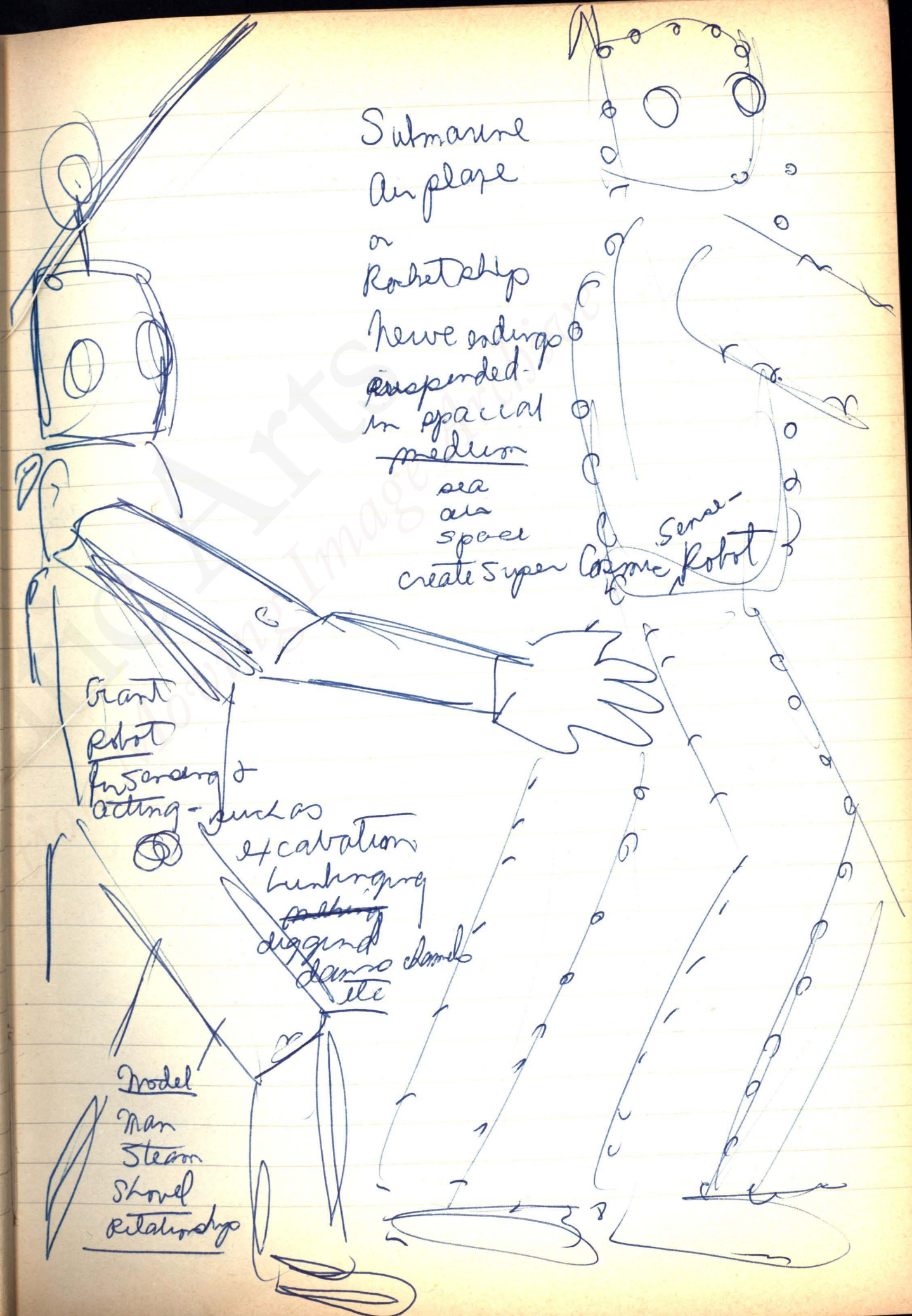
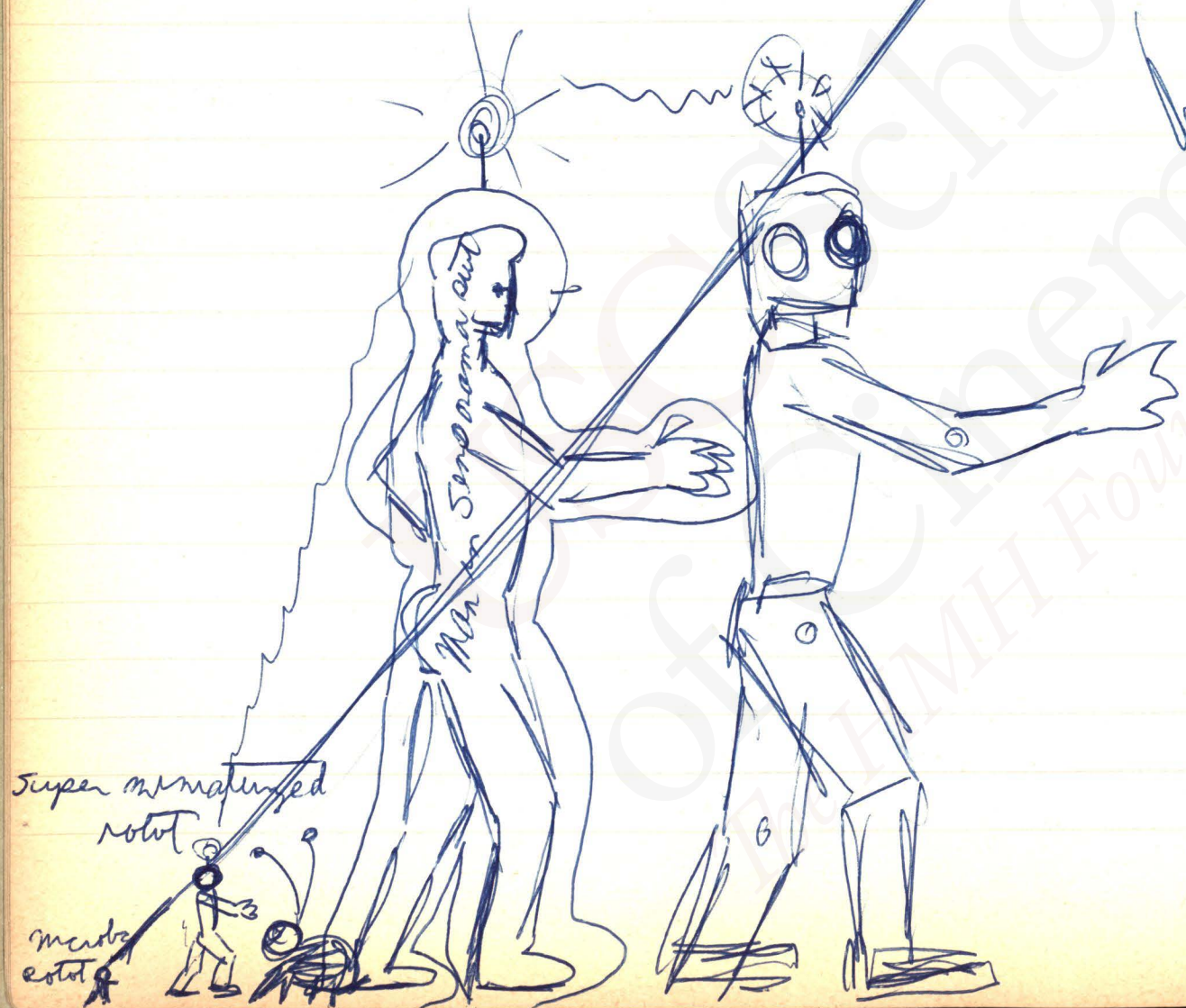
Design & Build a complete experimental unit -

aim ultimately for the best - Motor radio relay - Atomic battery energized - units

new elements ① Miniaturized Electronics

② Automation - servomechanisms etc

③ Atomic Energy supplies





2 basic forms  
 1. Controlled art form - Moves Today  
 2. Spontaneous form - Live TV - Today

① Robot - Director - Man  
 all controlled or semi controlled

② Robot - Man  
 Completely Spontaneous

Feedback can become a part of each of them - but exists in life today only in life

Can go anywhere - into a colony of microbes - ~~walk~~ walk along the bottom of the ocean - visit a colony of lions in Africa or fly amongst the nebulae (from the eye of reality to the ~~intact~~ intact ~~intact~~ ~~intact~~ without danger of fatigue -

just look up your sensorana suit with the appropriate robot

- ① Privately owned Robots
- ② Can Have local - Robot goods or Robots placed in foreign elements & places -
- ③ that can be dialed in like a telephone -
- ④ Local Experience center where a variety of robots are in a variety of insect colonies, fish bowls, lion dens - etc (zoo, aquarium, etc)
- ⑤ On big community look up to me common <sup>collective</sup> robot experience - ~~collective~~ Subo at sea, helicopters in air, space ships in outer space -

This is only the beginning - what a future.

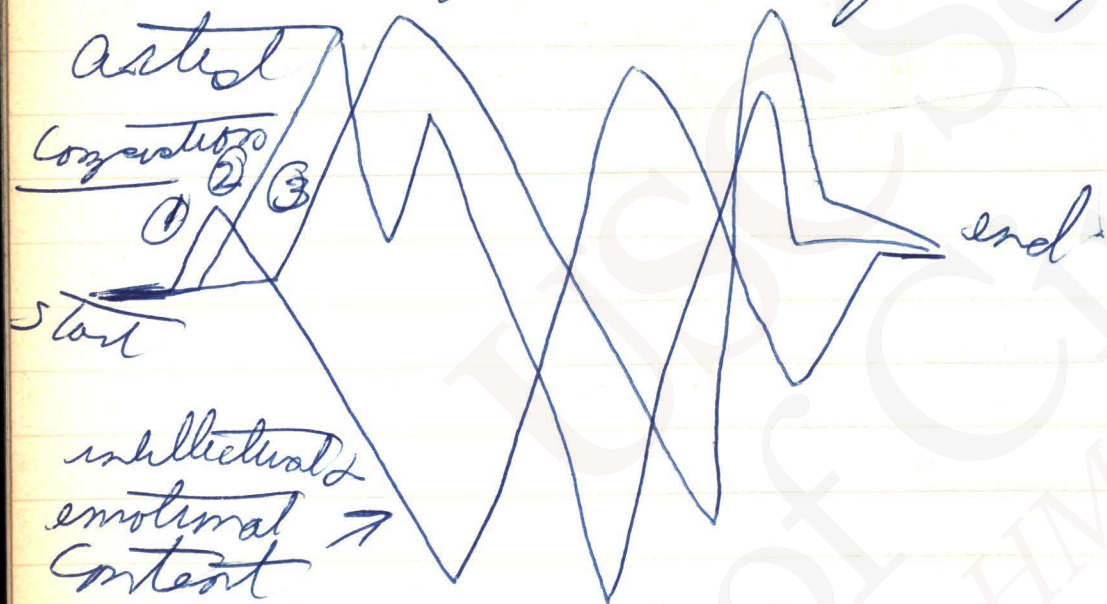
The Feed back Film - would be like a dancing partner or love partner to the Spectator - offering him spontaneity to suit his mood temperamental and certain inspiration - but within ~~the~~ certain limitations of such as ~~the~~ a given

dance rhythm (mambo - waltz etc)  
or the physiology of love.

This ~~will~~ way the spectator will  
be creatively involved to a  
much greater extent - & hence <sup>greatly</sup>  
& more deeply effected. <sup>excited</sup>

In the end the same ground may  
be covered - the same basic  
story told - but arranged according  
to the way the spectator prefers  
to be led on.

A new type of parallel composition  
will have to be developed by the



The film will be like an excellent  
dance partner or love partner

drawing out the best in the spectator  
It takes two to make a conversation  
to make love: - to reach great heights

The spectator will have <sup>living</sup> conversations  
with reality as ~~represented~~ by  
the director. !!

a new element in Art Form  
(see Japanese theater - Bunraku)  
and Automation

Until Art is put on a definitely  
scientific basis it can never  
become truly social, or cumulative  
in nature. Only by becoming  
cumulative can it catch up to the  
physical arts in power & hence  
social importance

Exact units of measure must be  
found for all psychical forces.  
These then must be handled in a  
mathematical way so that equations  
& patterns understandable to all  
men - <sup>through space & time</sup> can be  
developed.



Today an artist is like the cobbler  
of 3000 years ago - he makes the  
entire product alone - and he  
~~must~~ each artist must start  
from scratch like a baby learning  
to walk. He cannot build on the  
work of predecessors - Hence there  
can be no great social accumulation  
of artistic power. A modern and  
Greek painting are not considerably  
different in the power to effect mass  
soul. - ~~making~~ Rockets however do travel  
faster than Greek horses - we know  
Rockets can travel faster because  
meteors & planets do - ~~the~~ Similarly  
we know mass soul can be carried  
as far as the Yogis soul has gone &  
beyond

But only - ~~socially~~ Engineering  
design based on cumulative  
scientific understanding will enable  
get us there to get there.

Science will give us first the base  
for Technical Form - Next  
the science of Psychology & Information  
Theory the base for Aesthetic Form  
Pattern. - Next Sociology - Anthropology

& Theology the basis for Content.

The whole area of the Mind, Soul,  
Spirit, is just as amorphous &  
vague to us today as the physical  
world was to men 5,000 years  
ago

once - one element of nature  
Once there were - Earth, Air, Fire,  
water - now there are 102  
clearly defined elements - and we  
can manipulate their arrangement with  
exactitude in - Chemical formulations  
of complete dependability & formidable  
effect.

Where are the numerally exact elements  
of the psychical world - it is still an  
amorphous glob summed up in such  
vague terms as - Mind, Spirit,  
Emotion, Feeling, Thought, Soul etc.

Yoga, Hypnosis, Psychiatry, Logic,  
Information Theory - are all investing terms  
into the phenomenon of Mind - ~~the~~  
Communications Engineering or Art that  
uses its eff on these sciences and  
in a design = feeds them in return  
will carry man to heights of experience,  
& psychical development he cannot even  
begin to imagine today.

The <sup>potentialities</sup> ~~possibilities~~ of combining chemical substances through inhalation or injection plus intense functional feedback experiences through the sense apparatus - for the cure of ~~some~~ insanity - education spiritual catharsis and level physiological elevation of I.Q. seem to be considerable - certainly well worth intensive <sup>detailed</sup> investigation -

1. Altering neurotic patterns fear etc
2. Setting up new relations & education
3. Attaining spiritual integration of great force & height - Yoga Religion
4. Physiological Elevation of I.Q. in infants & children
5. Elevation of I.Q. transmitted by the germ plasma

Draw upon & combine all things known to affect the nervous system & psych of man.

- ① all outer sense data
- ② Kinesthetic sense data
- ③ Inhaled chemicals
- ④ Blood stream chemicals - Food or injection

⑤ Un sensed Radiation - such as Infra red - Cosmic Ray, bombardment - Magnetism etc. Gravitational forces - any all forces acting upon the body - here mind of man -  
Infra Red, Ultra Sonics - Cosmic rays etc.

Test ~~the~~ Mental Effect of each incoming force - by itself

then test in various arrangements alone & combined

then test with - limited & full feedback Response

Sense data Body gives - out -

- |                   |                                    |                                  |
|-------------------|------------------------------------|----------------------------------|
| ① Sound           | Facial Expressions<br>Respirations | unseen or<br>unfelt<br>emissions |
| ② Visual Pattern  |                                    |                                  |
| ③ Movement        |                                    |                                  |
| ④ Heat            |                                    |                                  |
| ⑤ Water           |                                    |                                  |
| ⑥ Vibration       |                                    |                                  |
| ⑦ Feces           |                                    |                                  |
| ⑧ CO <sub>2</sub> |                                    |                                  |
| ⑨ Gas             |                                    |                                  |

OUT

tests  
The study effect of arrangement  
& pattern of emitted material

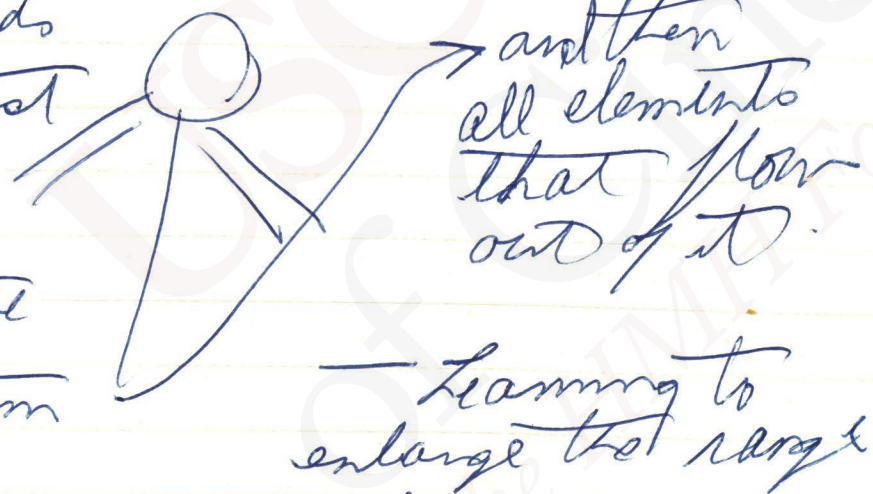
Then devise means of controlling  
all incoming & outgoing elements

Substituting - desired elements  
in quantity & arrangements ~~for~~ for those normally  
perceived in daily living

Colors, Sounds, Odors, tastes  
textures - Permittances - movements  
& reactions normally inaccessible  
to the human being.

Particularly - ~~to~~ bases chemicals  
Foods, ~~the~~ Narcotics etc

On other words  
analyse & test  
all elements  
coming to &  
affecting the  
nervous system



- Learning to  
enlarge the range  
& control -

~~This~~ This will be a giant step towards  
the use and improvement of all

affections & limitations of the human  
nervous system.

putting on the true road of tremendous  
& accelerated development in the  
efficiency, power and capacity  
of man's mental self - Our best  
hope of keeping up with the  
tremendous acceleration of our  
destructive capacities ~~of~~ machine  
substitutions - such as the Electronic  
Brain. (Reigron)

The Full Sensorama Suit is the prime  
experimental tool for the investigation  
& development ~~of~~ <sup>& its descendants - Robots.</sup>  
As just the microscope is  
for biology - The telescope for  
astronomy

Propose clearly - Explain importance  
~~Develop~~ - build it & study with  
Test with it - Then ~~make~~ produce  
summary works - SMEN

a theater is only ~~an~~ <sup>a group</sup> offshoot of the main  
course of investigation & experimentation & development

a Tremendous instrument for understanding and curing ~~some~~ the main problems of our times -

- ① Insanity - Mental Illness
- ② Political & Social Ignorance - battle for the minds
- ③ Technical Ignorance - Education
- ④ Spiritual Emptiness - Religion

More than ever ~~today~~ - man's problems ~~to~~ today are basically mental - ~~twice~~ - ~~to~~ ~~to~~ mostly ignorance, much twisted thinking - some insanity

~~Here~~ This will be an instrument for attacking these problems head on - ~~alternately~~ ~~more~~ powerful & ~~centrally~~ more important to man - survival and welfare than ~~the~~ Atomic Motors or Rockets

~~one of the 4 -~~  
~~20th century~~ Great Advances of the 20<sup>th</sup> Century

- ① Atomic ~~Energy~~ (pile) - Motors - Force
- ② Rocket Ship - Physical Movement
- ③ Electronic Brain - Pattern
- ④ Sensorama Suit - Psychological Movement

or the new science of pattern - related to man (Neurology/Engineering)

It might be possible to make an insane man ~~the~~ sane, Capitalist & Socialist, an ignorant & Engineer, and a spiritual rock man full - in one 10<sup>hr</sup> hour ~~presentation~~ session in the Sensorama Suit! P. Power like any other to be used wisely.

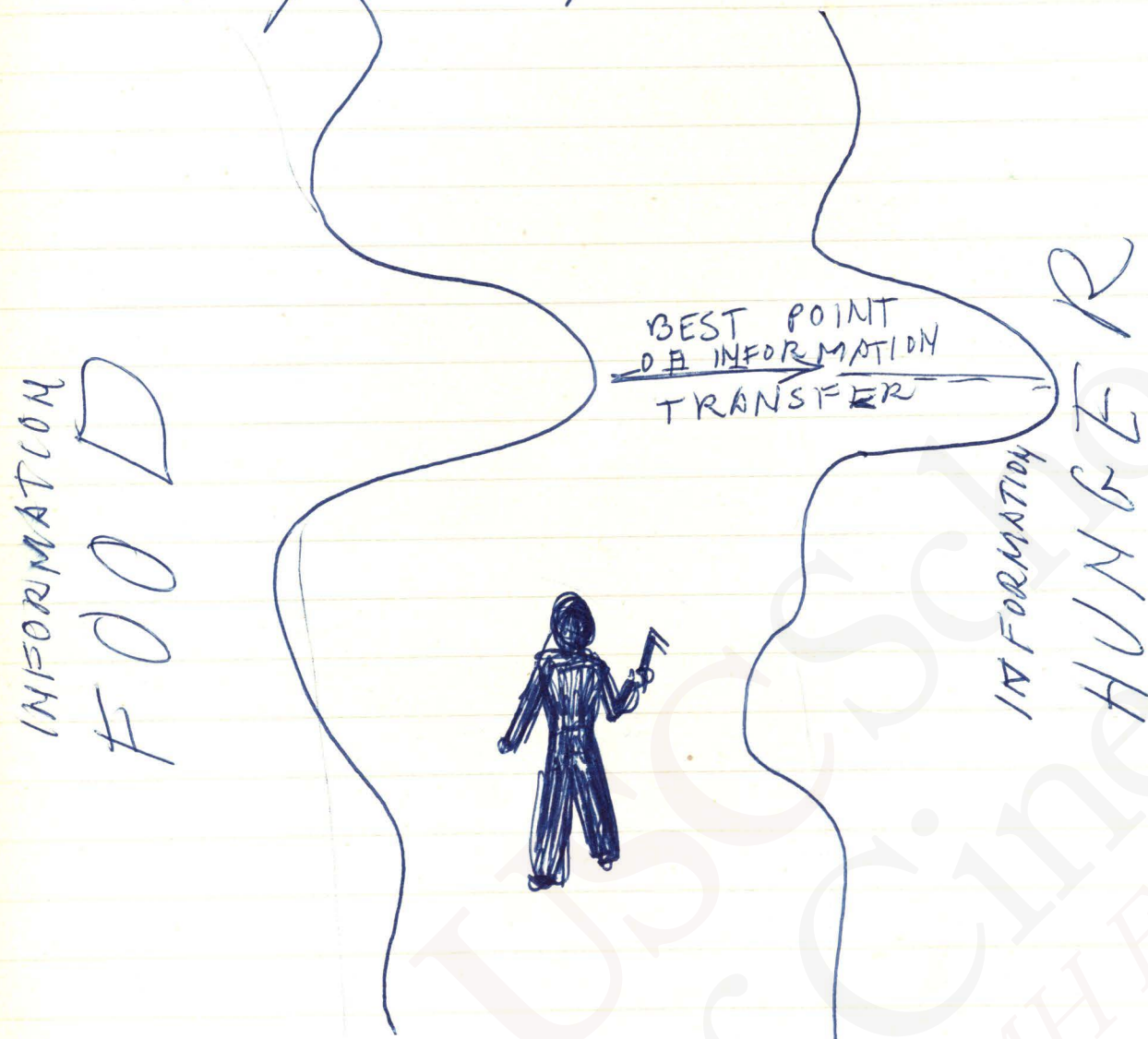
ADAPTATION - is nature's way of complying to the process of design in the sphere of biological evolution -

"Every organism is a 'bundle of adaptations' more or less detailed and efficient, coordinated in a greater or less degree" wrote Huxley

- I have a clear key in choosing subjects for films - with it I feel like an explorer who has found a detailed map of an unknown land & can walk quickly & confidently through it

I walk down an open lane flanked on one side by greater or lesser amounts of information - & happenings and

on the other side by human needs  
 or put in other words by varying  
 quantity of foods and on the other  
 by varying degree of hunger.

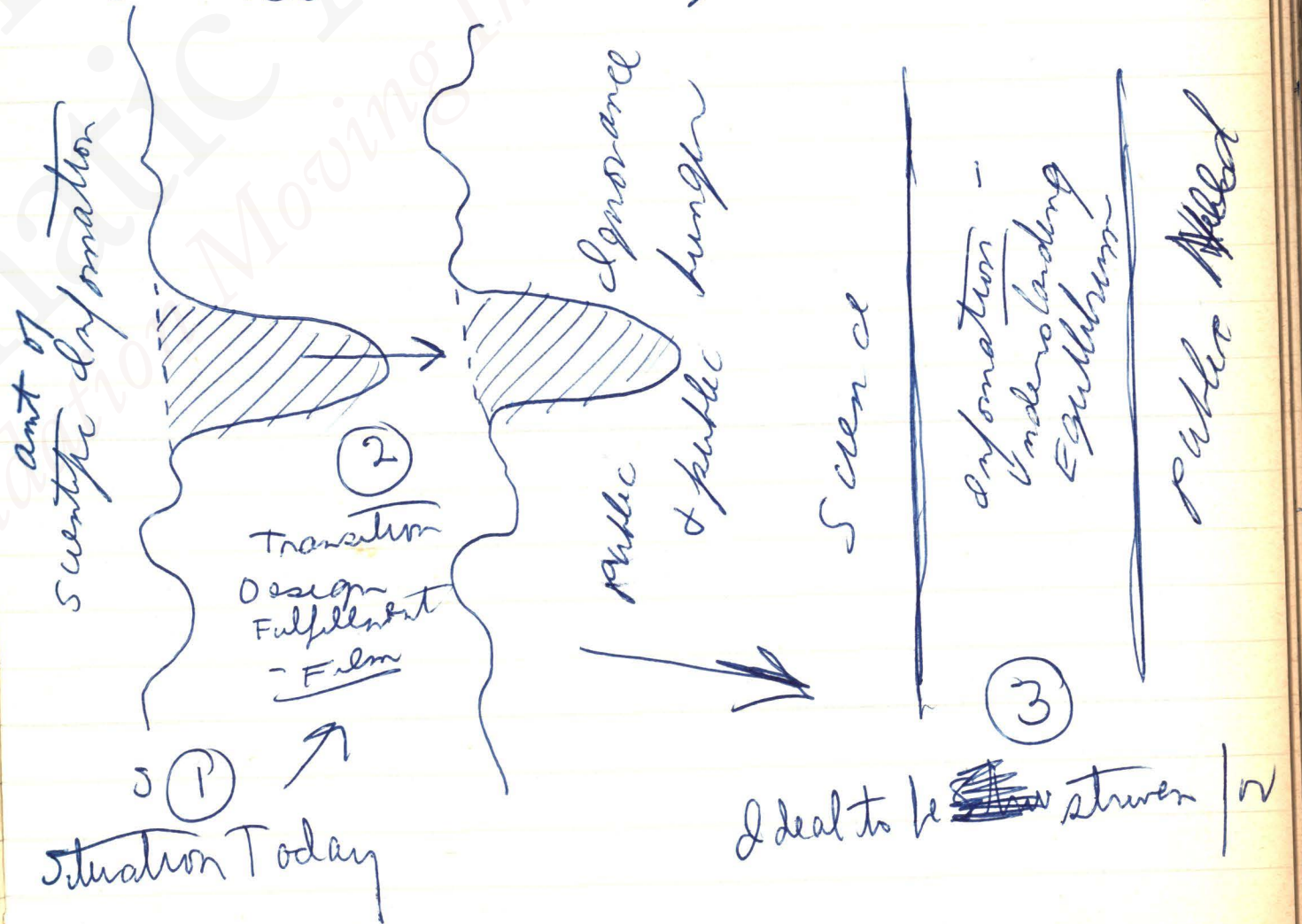


Like with lightning - the greatest  
 sparks will jump where the greatest  
 difference in positive + negative  
 potential accumulates



Where the greatest accumulation of information  
 is fed to the greatest hunger -

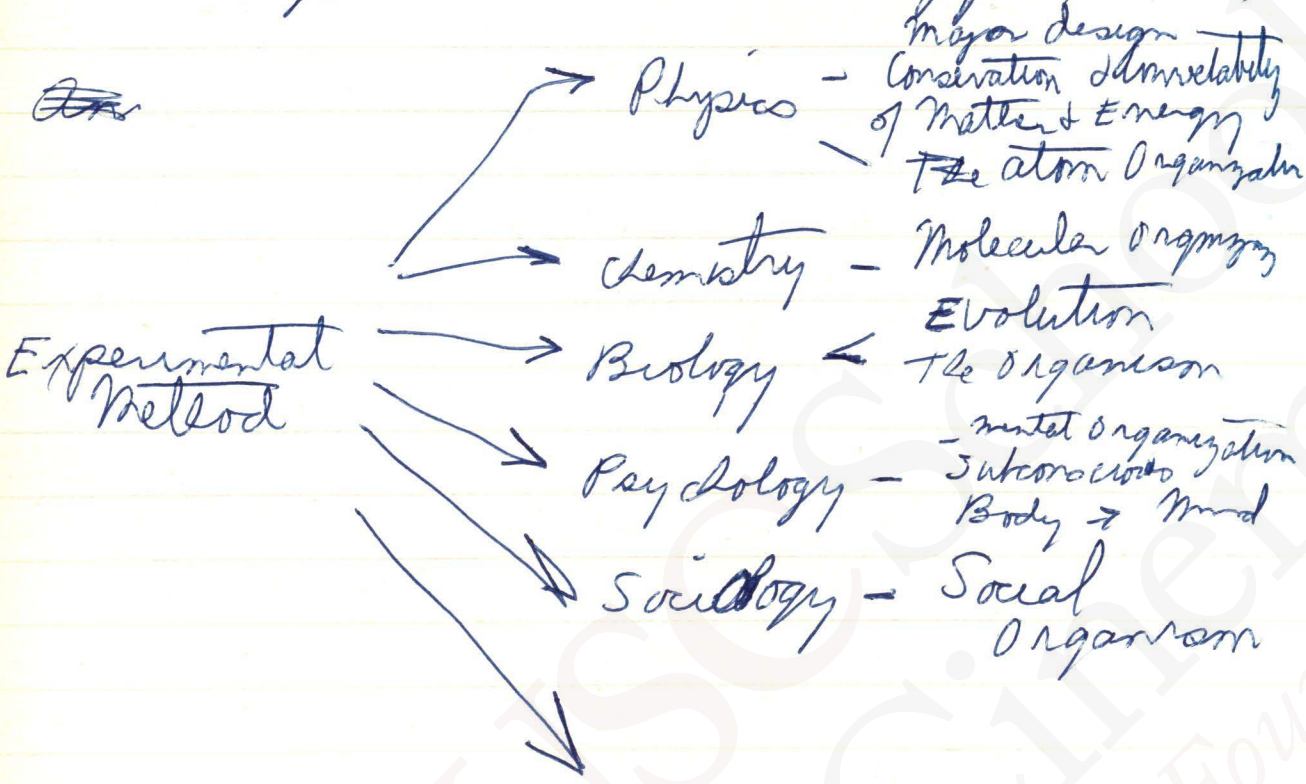
- action upon science and the audience  
 will be most temporal - Science will be  
 articulated - ~~and the~~ unbridled - and the  
 people will understand what they crave  
 to understand - the best possible  
 result for social harmony whereby  
 the public will willingly support  
 science - and benefit from its findings



Way of Design - <sup>The</sup> The Laws of Design in the Form of Design

The Method of Experimentation is actually a method of designing good theory or laws of nature. - which themselves are the designs of nature.

Thus the greatest discovery of Epistemology was the Design of a method for obtaining the most ~~reliable~~ acceptable knowledge (or its closest approximate)



Two basic facts are investigated for a complete understanding of the existing organization.

- ① Present Anatomical Structure & Function
- ② Origins - Historical Background

The Anatomy & Physiology of Design - The Form & Process of Design

The Structure and Function of Design

These two lead to forecasts of future development directions - most important to the correctness of mans intervention - its ~~actual~~ correctness, justification etc

"The Nature of Design" (The Form & Function of Design)

"The Form and Process of Design"

- The Atom - Matter - Energy
- > Molecule - Origins
- > The Organism - Cell - Evolution
- > The Mind - ~~Body~~ Mind - Growth
- > Socialism - History - class struggle

THE NATURE OF DESIGN

Chapters - Definition

- ① Design in Nonliving Nature - Universe to Atoms (Physics)
- ② Design of Living Organism - The Cell -> Man Biology - Physiology
- ③ Design of Works of Man - Industry art
- ④ Design of Society

- Method of Development

⑤ Designing for Design - Science - Engineering and  
in Material & Social Spheres

In each category will be  
illustrated the various principles of  
design - such as - ~~aim~~ - aim or need,  
elements - integration - specialization -  
application - feedback. (Efficiency etc)

and the personalities of great designers  
① Euler - Bohr - Darwin - ③ ~~Batman~~ Ford & Corbousier  
Eisenstein Da Vinci - ④ Marx - Lenin  
Edison Paine -  
⑤ Bacon - H etc

In each chapter forecast the effects of  
future design -

or maybe a better organization  
is to make a chapter for each  
step in design & illustrate  
the point with all 4 fields.  
Material - Biological - Values of Man  
& Society.

"The Bible of the New Era of Designism"  
~~Designism~~

The Community Theater should be designed around 5 basic  
~~to the~~ steps in the Complete Experience

1. Physical Preparation - Swim <sup>(Food-Sleep)</sup> Shower  
~~Shower~~ T990
2. Mental Preparation - <sup>Reality</sup> ~~that~~ reminder room
3. Psychic Experience - Cinemascope Room
4. Mental Expression & return - TV - Debate -  
Discussions
5. Physical Expression & return - Dancing -  
Redressing

The Reality Reminder Room - should be  
drawn basically from - <sup>(Museum of Natural)</sup>  
Natural History <sup>Museums</sup> <sup>(History)</sup>  
Plantariums  
Zoo - great chunks of  
aquariums <sup>minerals</sup>

But instead of this somewhat better  
shelter arrangement - the elements should  
be arranged from a human engineering  
point of view to have an increasingly  
intense effect upon the spectator as he  
moves past them

Beautiful Rocks, crystals, chunks of Tretons  
beautifully displayed with effective - side &  
rock lighting

Rocks

Atoms

Molecules

Rocks - Crystals

Protozoa - Living

Fish - Stuffed & Living

Animals - Stuffed & Living

Primitive Man

The Earth

Solar System

Universe

An interesting possibility of the Senorama Suit  
Robot control combination is ~~for~~ in connection with  
puppets - similar to the ones Trenka uses.

By creating puppets Trenka has many  
important freedoms.

1. Freedom to create any physical type -  
normal or grotesque
2. Freedom of facial type
3. Cheapness of costume
4. Ease of creating fantastic sets inexpensively

In sum great freedom of imagination + great  
control - at small expense

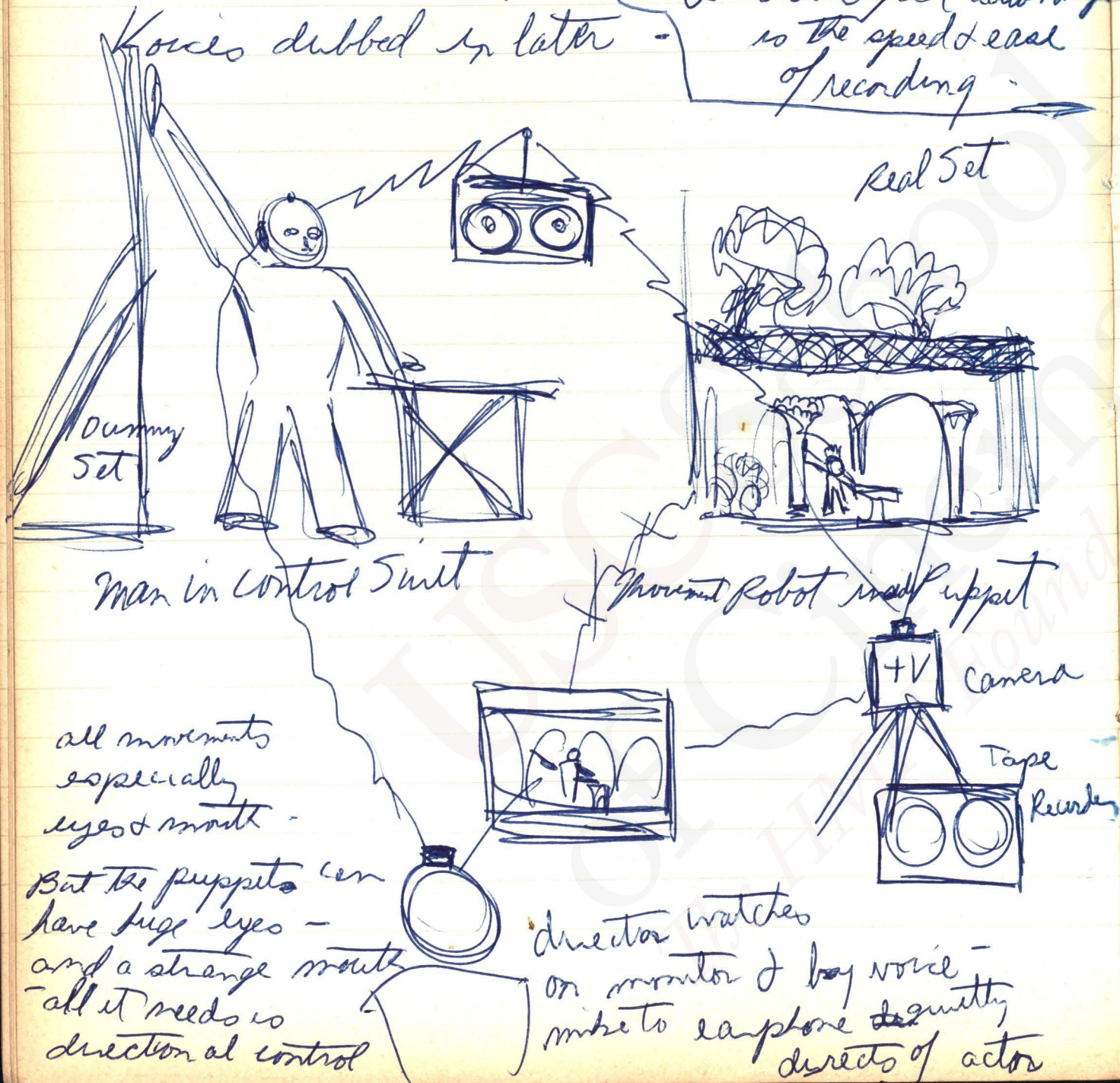
But probably the greatest single drawback  
of the puppets is the stiffness of their  
movements - & the lack of movement in the  
face + the tremendous amount of time & energy it takes to  
record movement a frame at a time

I believe it will be possible to have the freedom  
of puppets with the naturalness of real  
men by having men in Senorama type  
suits acting out the movements on dummy  
stages - these movements being conveyed  
to miniature robot-puppet by radio



Several actors could work at once  
 or - the director could assume  
 all parts - recording each actors  
 or actresses movements on tape -  
 and one at a time & then playing  
 the tapes back to their appropriate  
 puppet form - for the filming -

other great advantage  
 is the speed & ease  
 of recording -



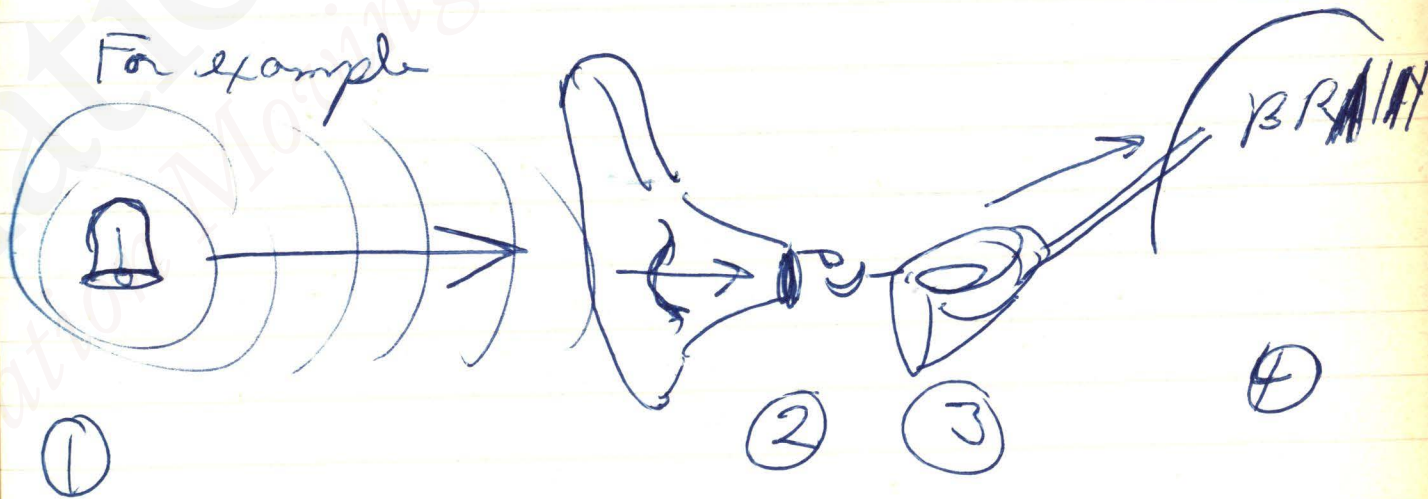
all movements  
 especially  
 eyes & mouth -

But the puppets can  
 have huge eyes -  
 and a strange mouth  
 all it needs is  
 directional control

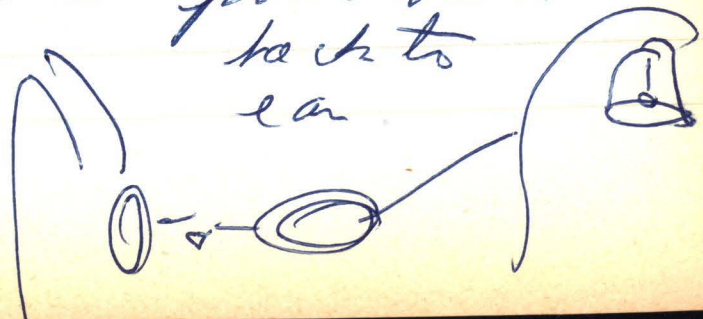
director watches  
 on monitor & by voice -  
 mike to earphone directly  
 directs of actor

The real task ~~from the~~ in the Area of  
 Aesthetic form is to develop - automatic or  
 semi automatic animation - it will be  
 one of the really great breakthroughs in  
 the art of motion pictures.

If there is any echo back however feeble of  
 sense images - back on to the original  
 organ of reception there might be a chance of  
 picking the feeble vibrations up & amplifying  
 them so they can be seen or heard

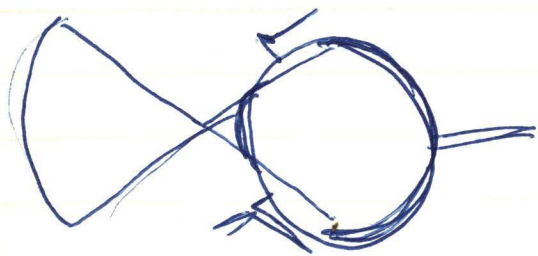


When the individual imagines he hears a bell  
 there may be some conditioned type of  
 backflow or echo - from brain  
 back to  
 ear



a very sensitive ~~stump~~ could be placed against the ear drum - amplified & broadcast - without external contamination.

Pick up sounds in ear -	d/any (feedback)
Voice at vocal cords -	or shadow
Visions from retina	echo occurs
Smells from nose	it will be
Taste from mouth	very feeble &
	require considerable
	amplification



illuminate the retina with special light such as infra red ultraviolet to detect color state of retina - then photograph imagined image.

There might be in many instances sense transfer i.e. You hear what you see - Smell what you hear etc. These would have to be unscrambled but could be used.

Probably the ~~the~~ greatest steps in Physical health can be listed as

① The elimination of external filth - Hygiene connected mainly into good ~~for~~ supplies of fresh water & sewage - i.e. Washing

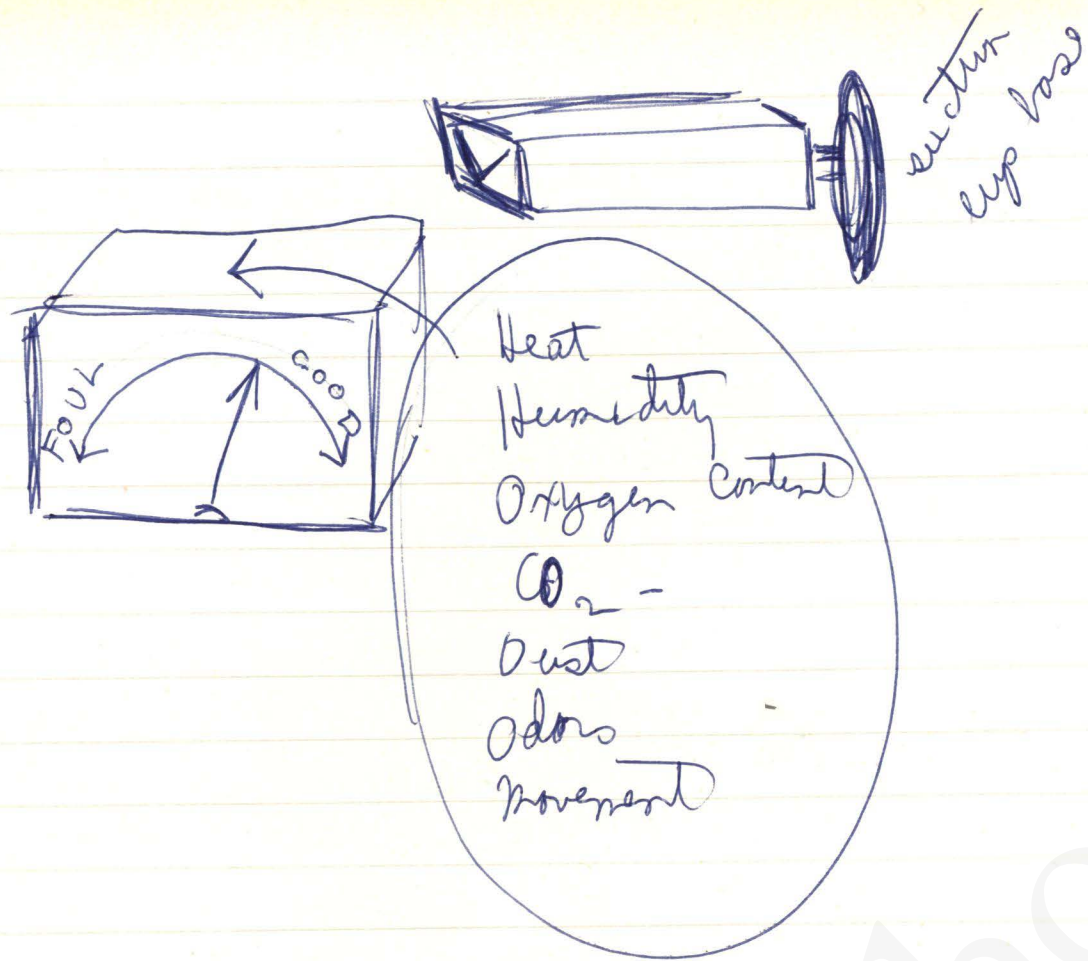
② Proper food - ~~based~~ based on a dietetic study of the body's caloric mineral and vitamin necessities i.e. Food

③ Respiratory Cleanliness - Supplies of fresh clean invigorating air - We have as yet no clearly publicly recognized criteria of what good air is - & above all we have no cheap easy ways of evaluating the air the we breathe of improving when it is found lacking

(Hence following invention)

④ Circulatory Cleanliness - Exercise

⑤ Nervous Cleanliness - Education - Cathartics & Expression



### City Wide Air Hygiene

① All sources of air pollution must be completely stopped

- Ⓐ car exhausts
  - Ⓑ Factory chimneys
  - Ⓒ Homes
  - Ⓓ locomotives etc
  - Ⓔ Sensors etc
- either trapped or piped out of city & released in Forest or better at night get reconverted

② O<sub>2</sub> producers in city  
~~to~~ Tree Belts -

Oxygen enriched air piped into homes especially individually to bed & chair & car

(Thesis of film & action on air hygiene)

We must have as complete an ~~air~~ air system as we have a water system  
ie. ~~Hygiene~~ in good health & an of removing waste and  
This will add on average of 10 years to lives of all city dwellers as well as add immeasurably to their ~~the~~ vigor & sense of well being - (happiness)

- In middle ages there were dung heaps & breeding disease in the middle of the town

These solids were removed

- Then we ~~we~~ poured waste liquid into streets & streams finally these liquids are now being removed

- Now we live in the midst of gaseous wastes - which breed uncontrollable diseases cancer & general fatigue  
When we remove these gaseous wastes we will have taken a third great step in public health & hygiene

- after that - mental rubbish ~~and~~ must be removed  
work benches & cars  
anywhere when the individual stays still indoors

Following the Design Principle of  
Individual - Collectivity - now most  
commonly seen in - <sup>European</sup> Public Showers and  
European Railroads  
& Laundromats  
you should make a new kind of TV-Cinemascope  
Theater -

Individual or, a couple, or small group -  
select a Cinemascope film from the  
libraries collection - ~~or~~ By checking  
through - illustrated categorized files +  
with - artists & Reviews -

They are told to go to room 212  
- they go sit down close door & in  
25 minutes the film starts - projected  
from the libraries central projection  
room -

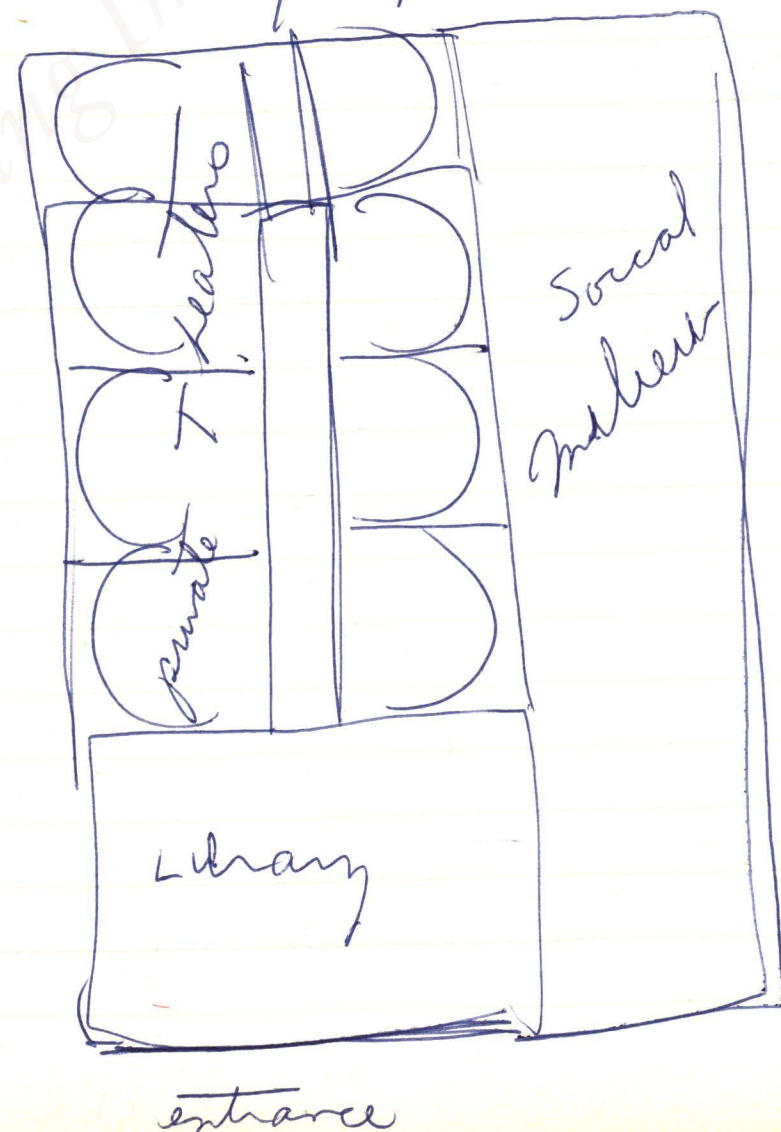
In this way everyone can have

- ~~1. Cinemascope Pro~~
1. Personal choice of film
2. Seen when desired
3. Seen in privacy - so can  
comment freely
4. See most advanced Cinemascope  
technique
5. Emerge into Social nucleus for disc

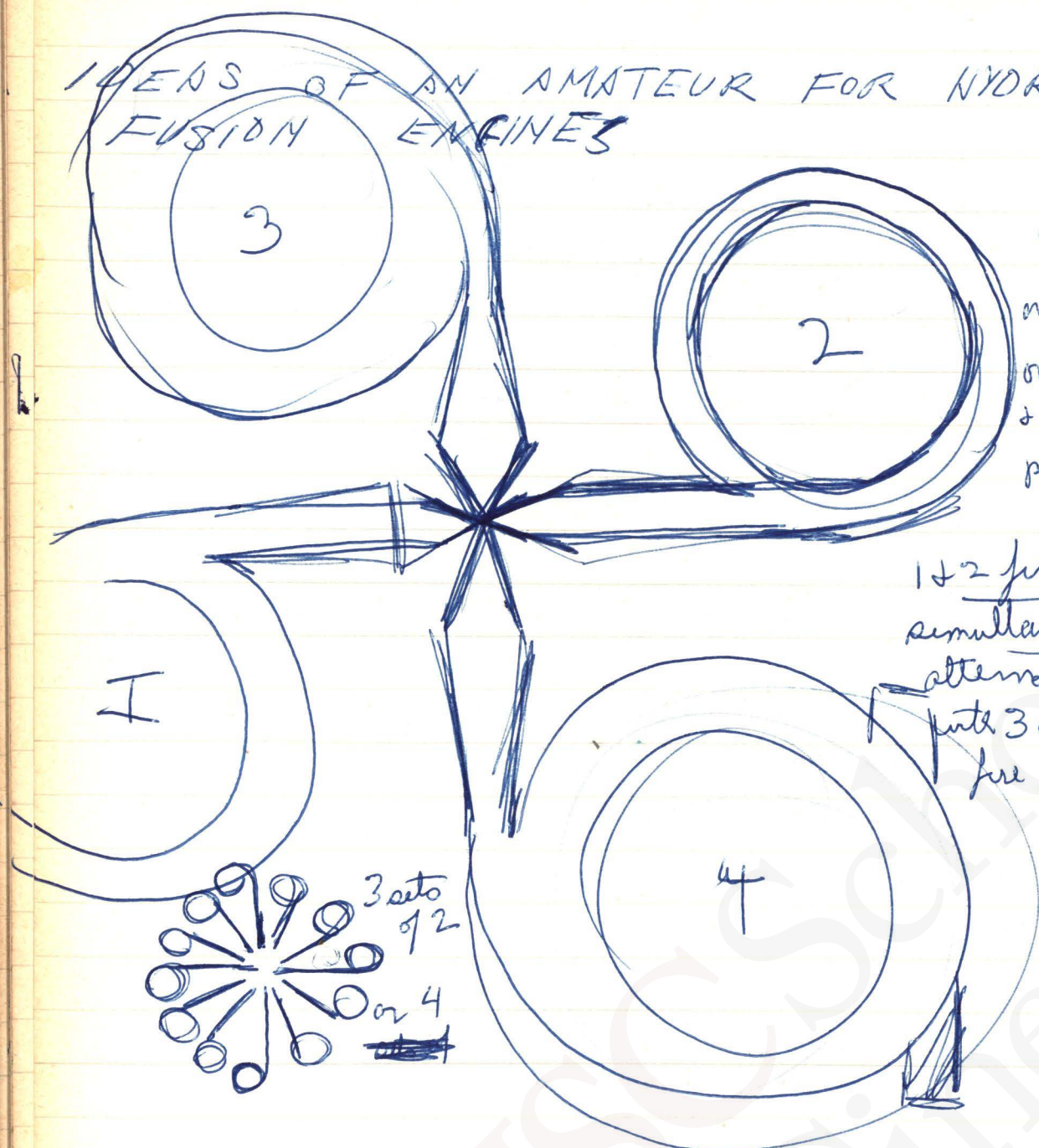
Poor community of 1,000 families - which couldn't  
afford 1,000 theaters + ~~films~~ - 1,000 copy of each film  
can afford 100 theaters - and one copy of all films.

This combines the best features of

1. Public library - for inexpensive wide selection
2. Private - intimate TV viewing - free conversation
3. Social nucleus of Big Theater

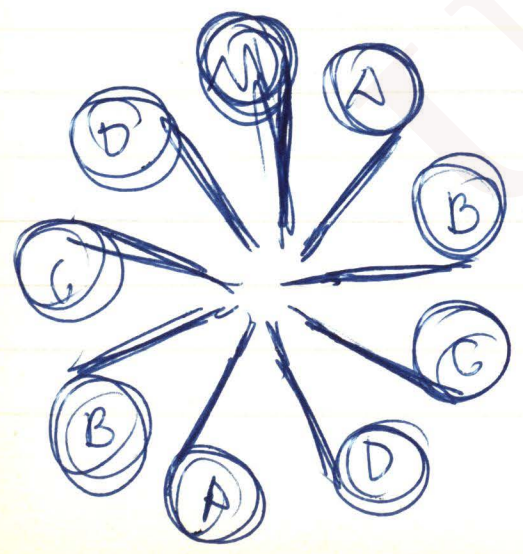


IDEAS OF AN AMATEUR FOR HYDROGEN FUSION ENGINES



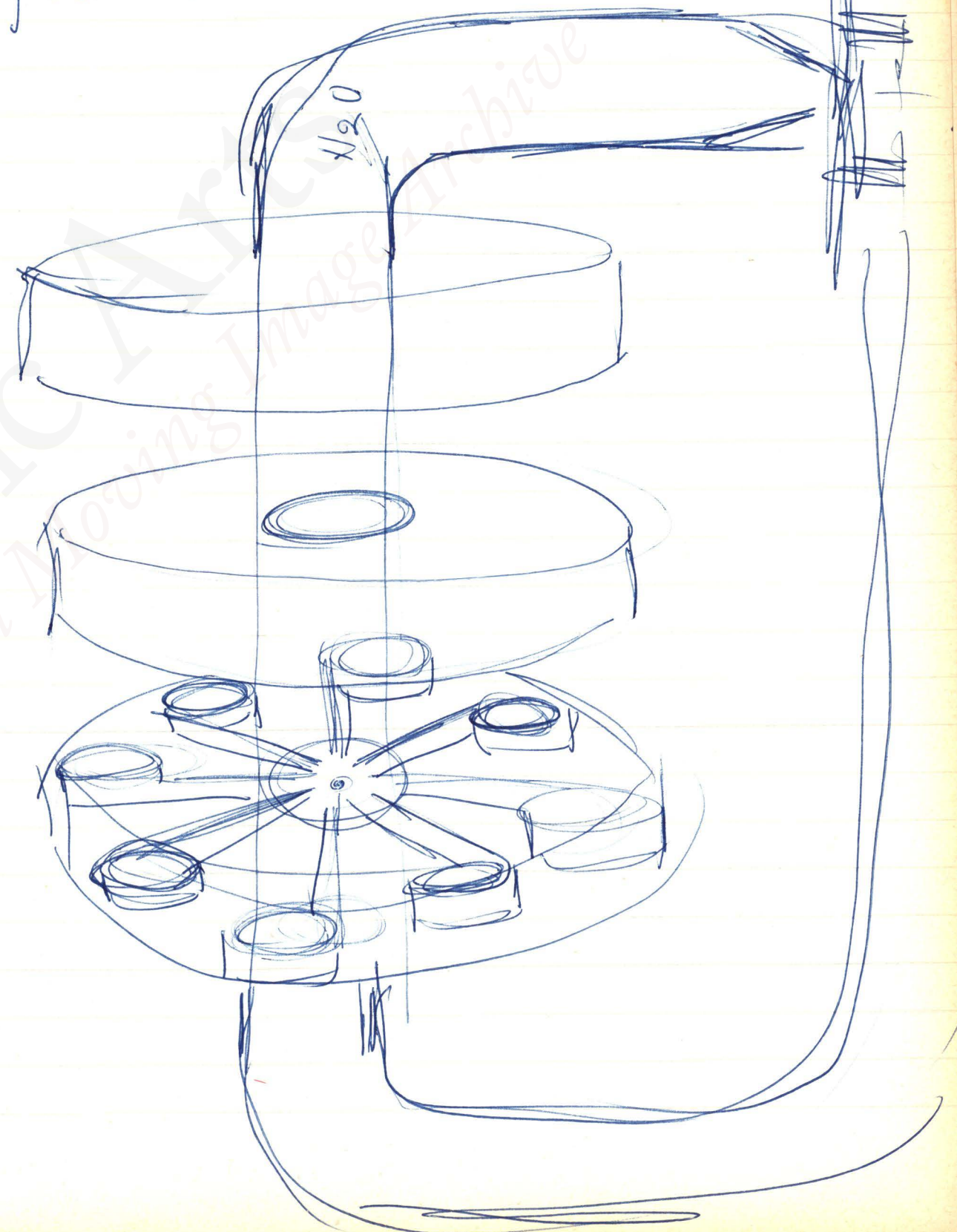
1 & 2 simult  
3 & 4 simult  
or 1, 2, 3, 4 simult  
or 1, 2 simult  
& 3 & 4 simult  
placed a second  
set of 4

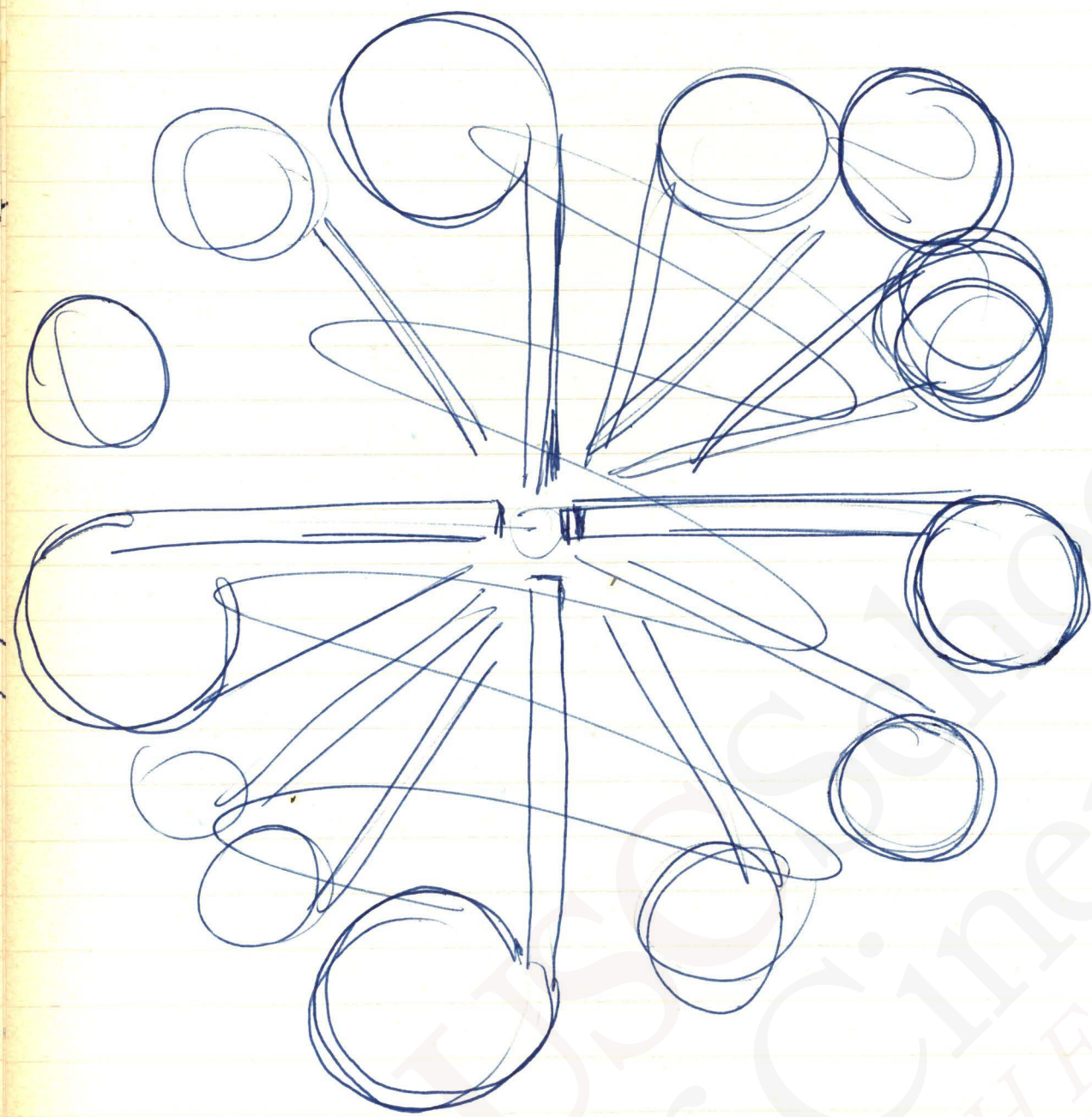
1 & 2 fire  
simultaneously  
alternately  
with 3 & 4 which  
fire simult



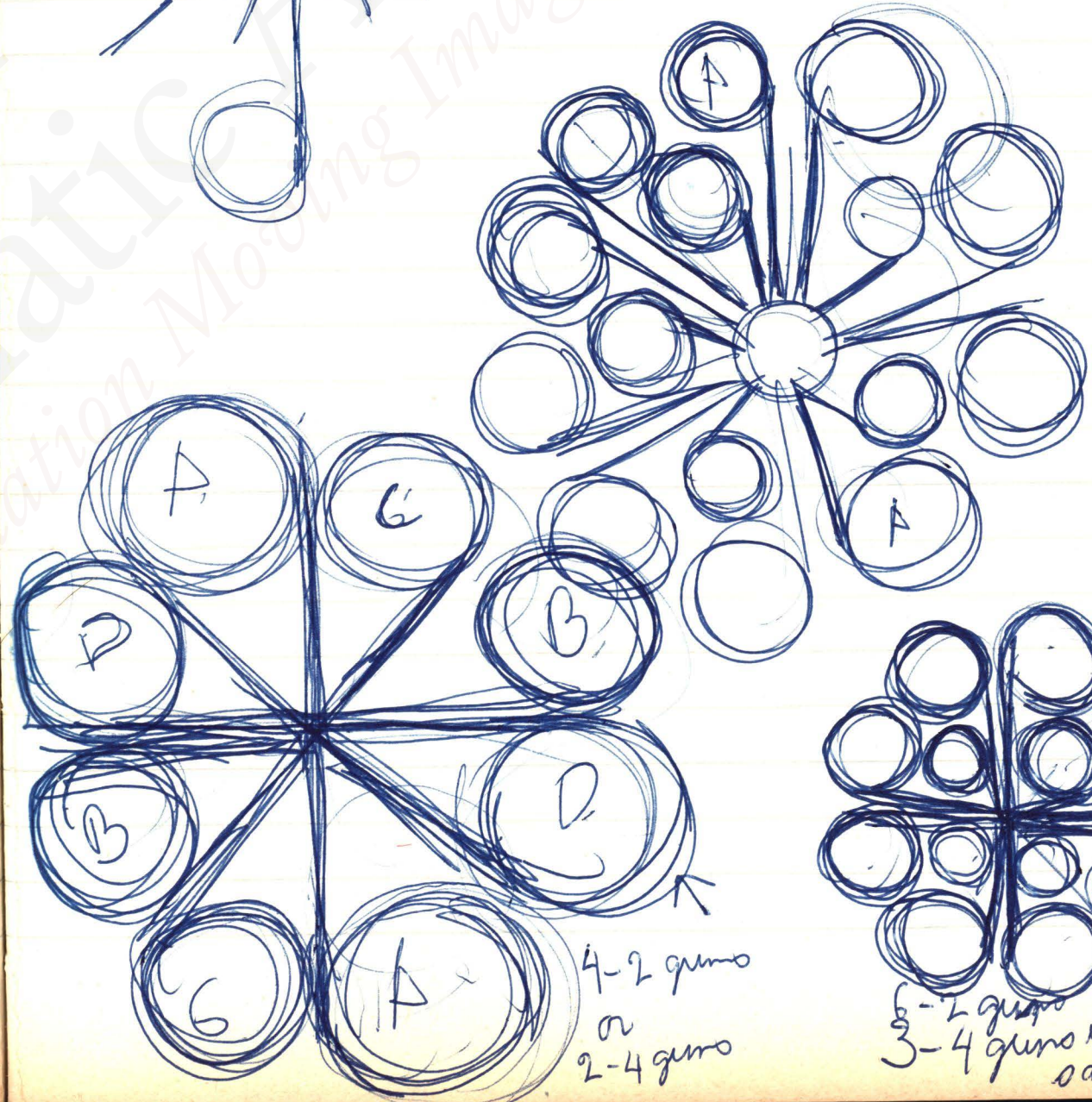
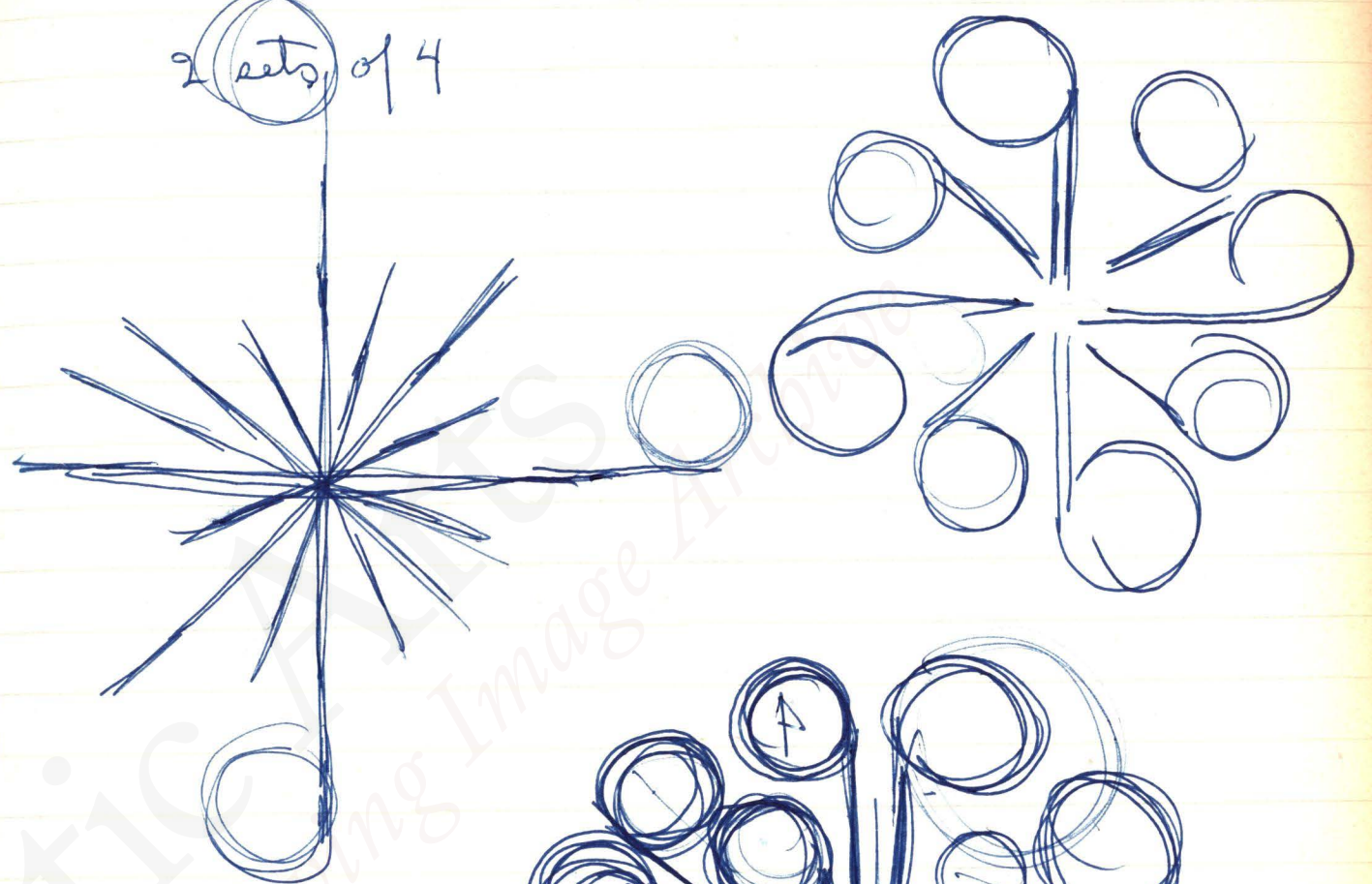
~~Each set~~  
can fire  
or a set of 4 can  
fire simultaneously in  
alternation with another  
set of four

eventually these can be arranged like firing  
pistons along a vertical water shaft - ~~the~~ the  
piston rod

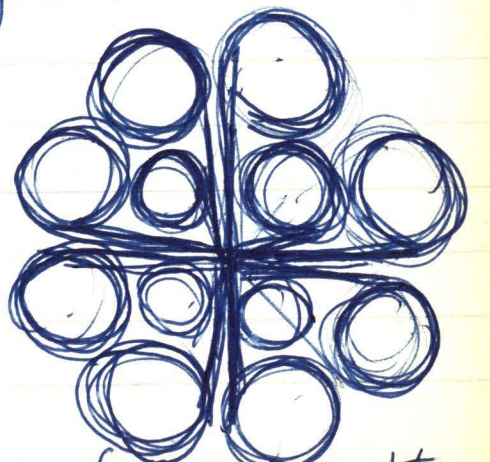




2 sets of 4



4-2 gpus  
or  
2-4 gpus



6-2 gpus or the  
3-4 gpus in the  
same space

This engine combines principles of

Cyclotron

Linear Accelerator

Pinch Effect  
Opposition Collision

Election Focusing of TV & Microscopes<sup>EL</sup>

Jet Engine Expansion

Radial Piston Engine Timing & placement  
& Fusion heat transfer systems

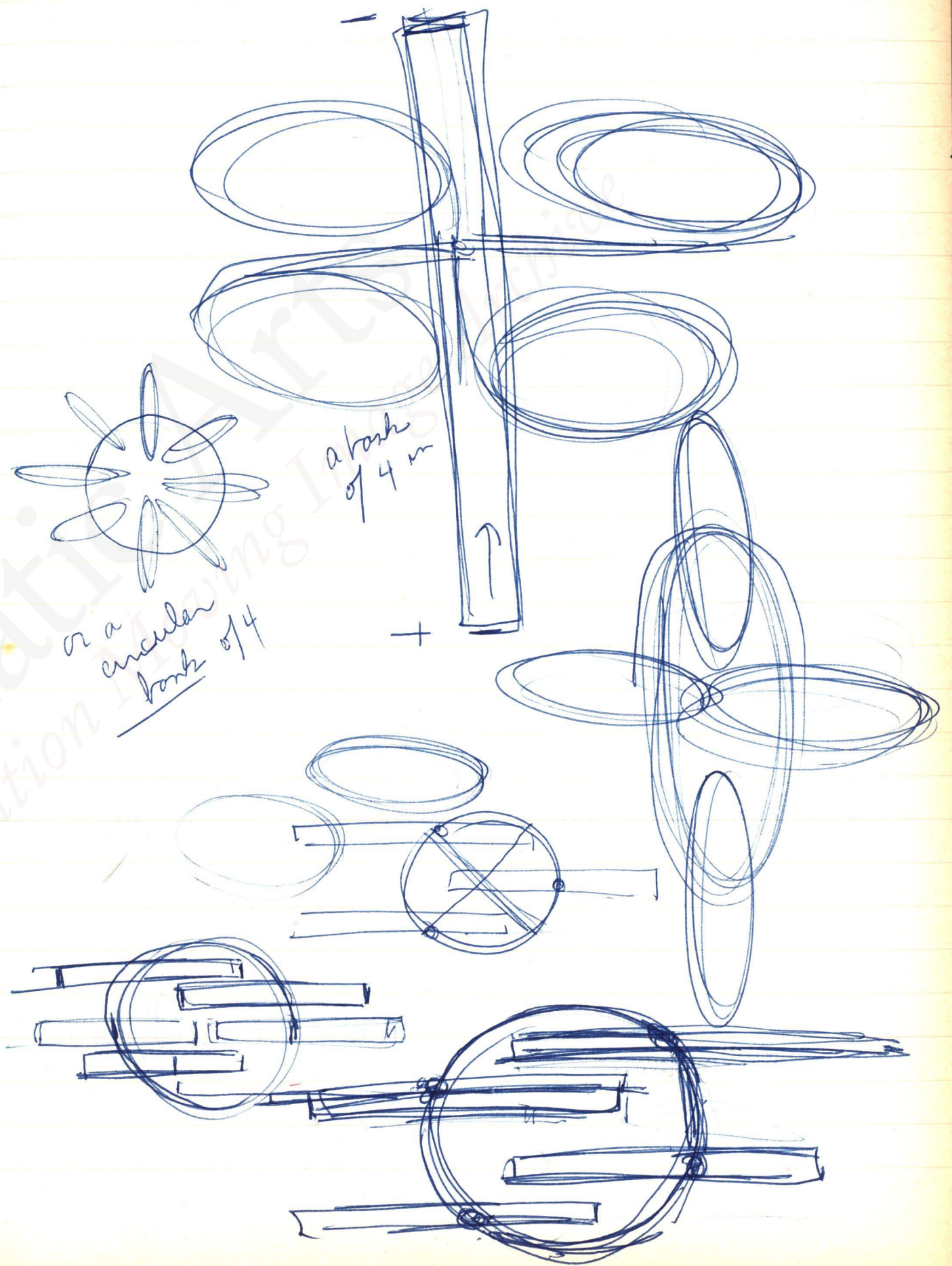
Cyclotron gives tremendous speeds

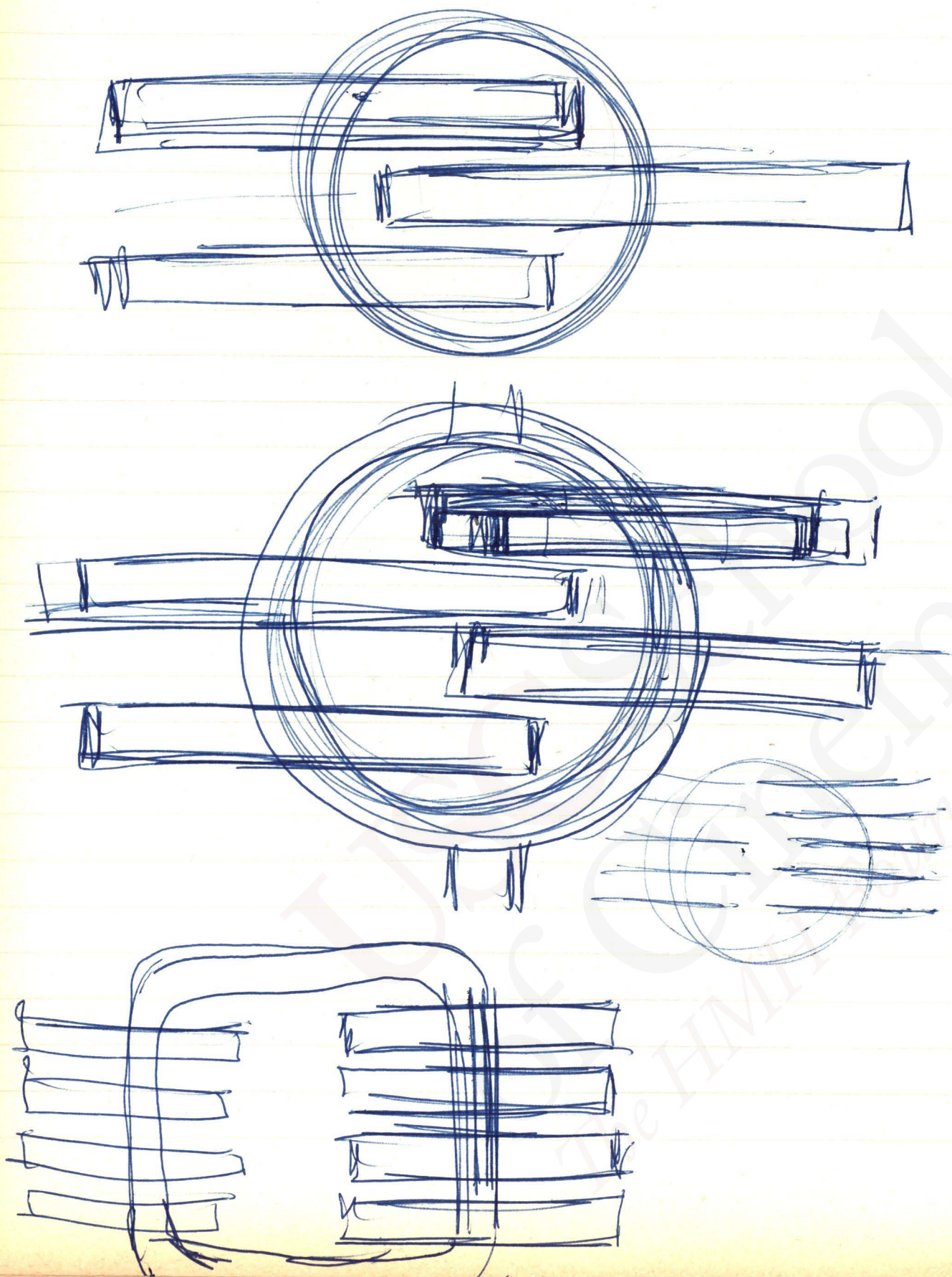
Linear Accelerator - tremendous last kick  
jet engine expansion gives increase of speed

Pinch - Concentrates & Focuses

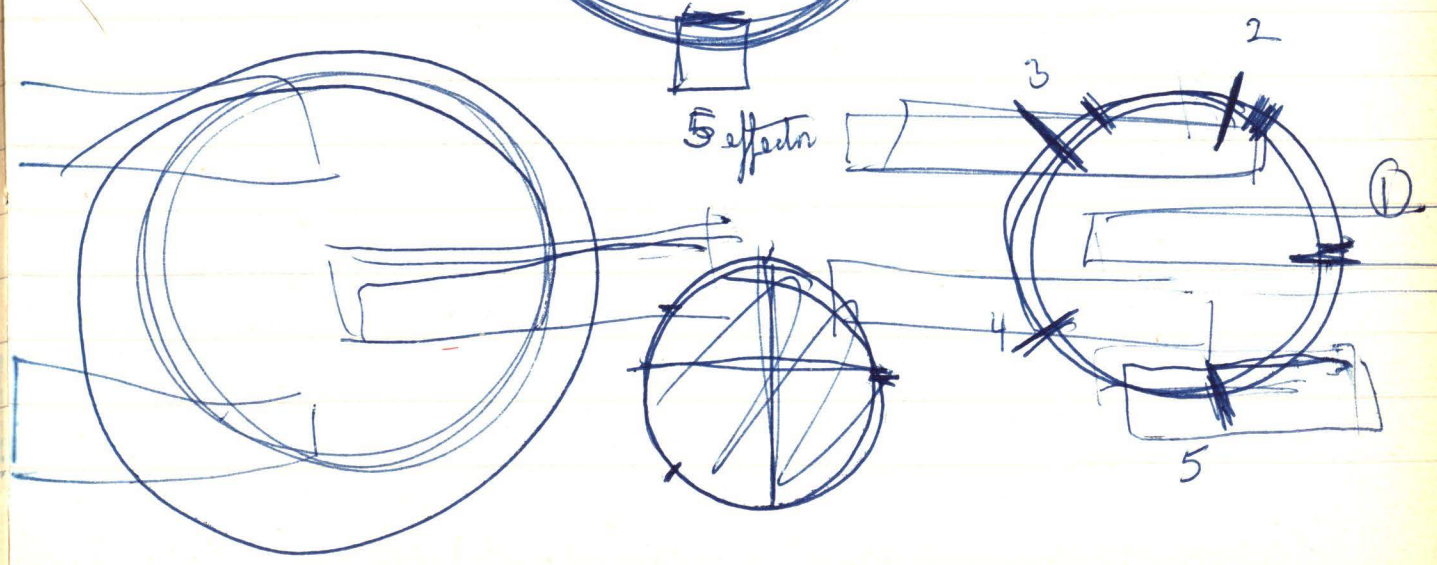
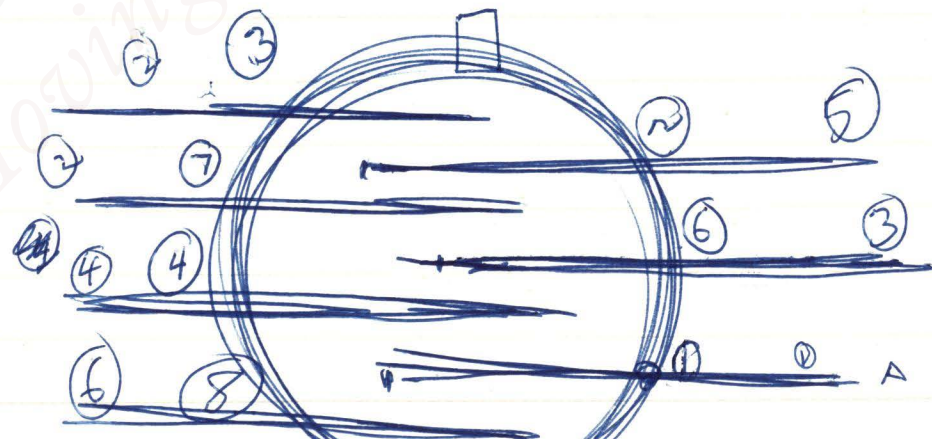
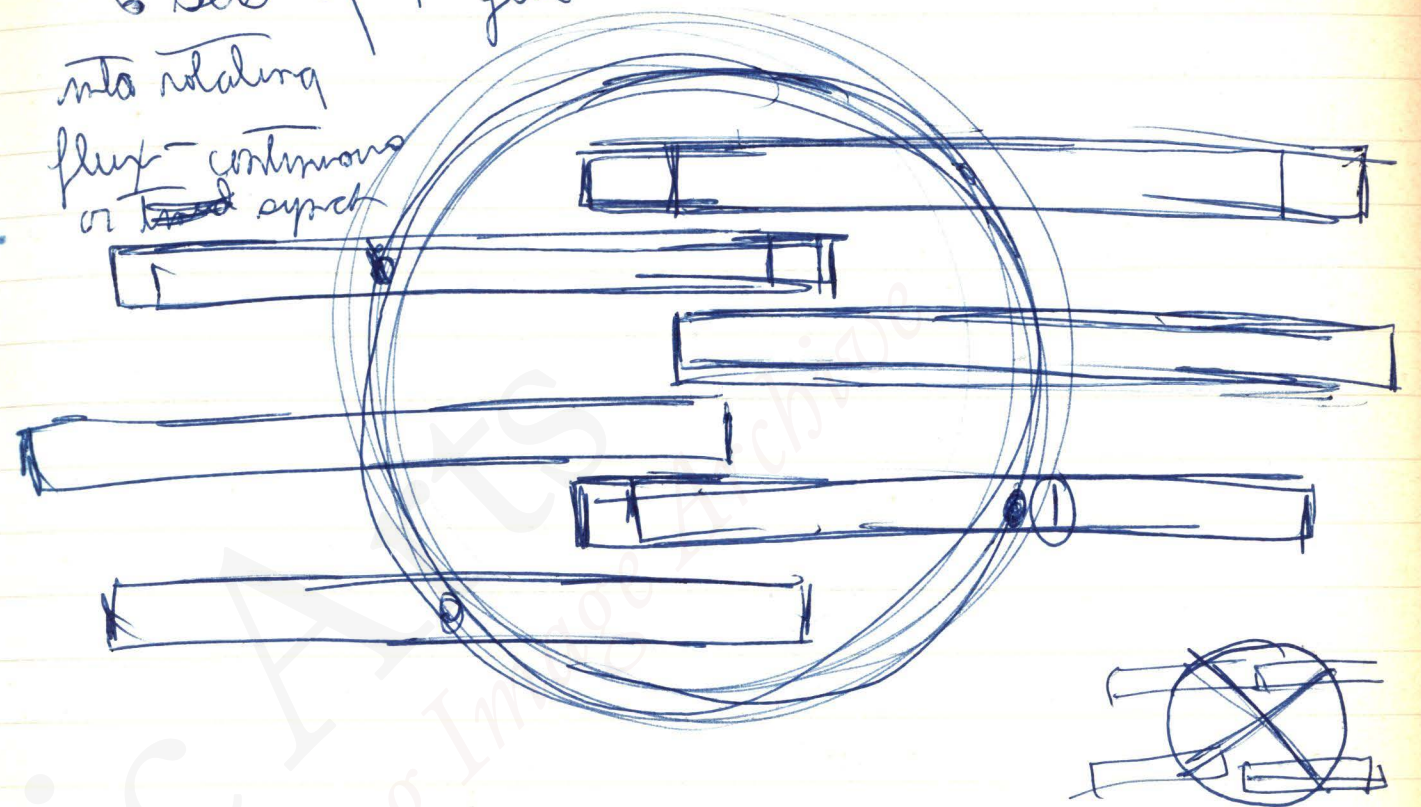
Head on collision - 2 or 4 ways - doubles  
energy & increases chances of fusion  
by pow of 2 or 4

Radial piston like arrangement - permits continuous  
~~series~~ of collisions - with time for each  
set of cyclotrons to re-speed themselves - i.e. each  
bank of 4 works ~~sequentially~~ sequentially with the others

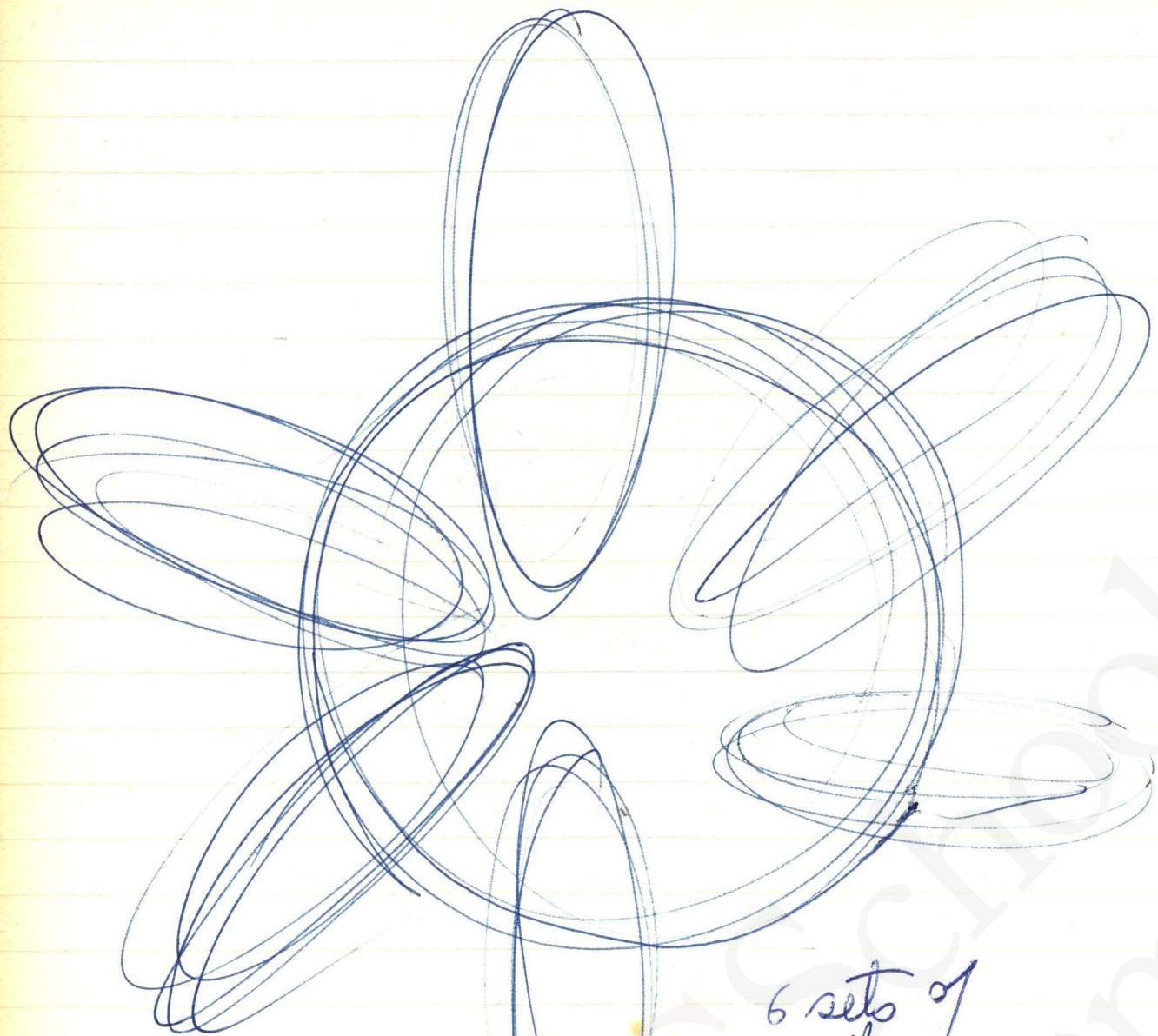




6 sets of 4 fine  
 into rotating  
 flux - continuous  
 or ~~fixed~~ aspect

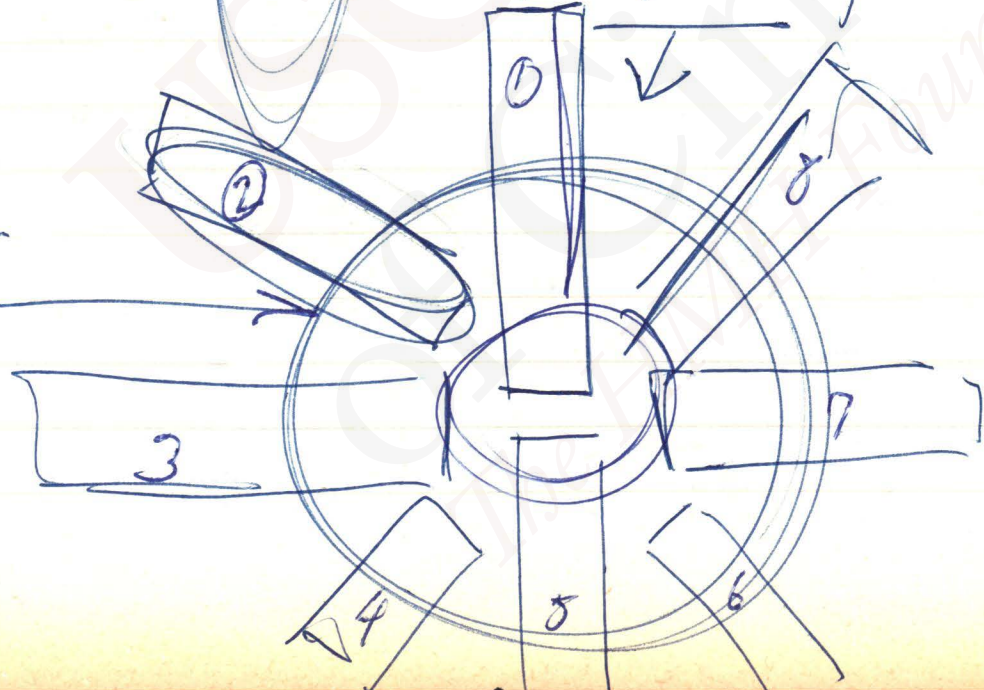




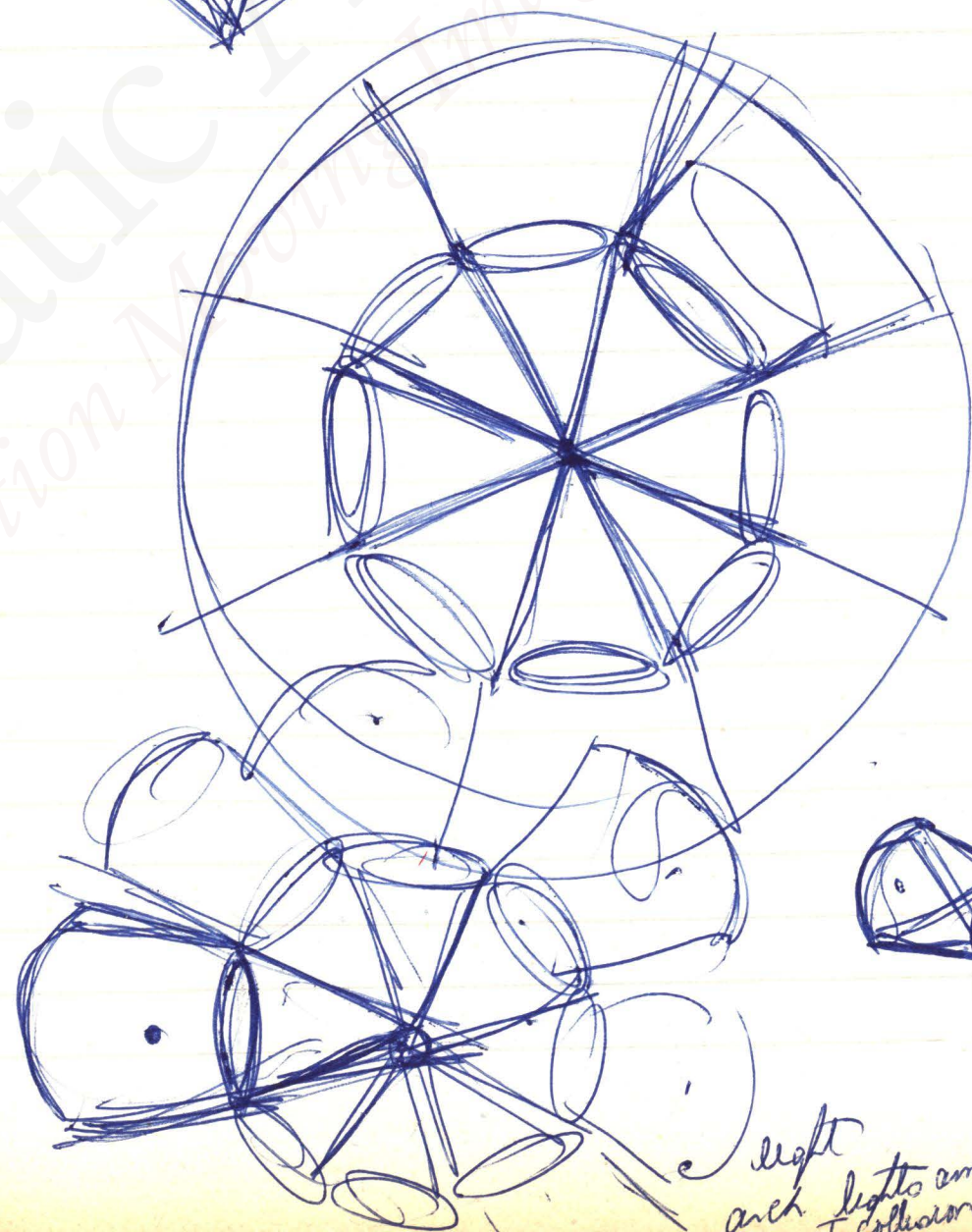
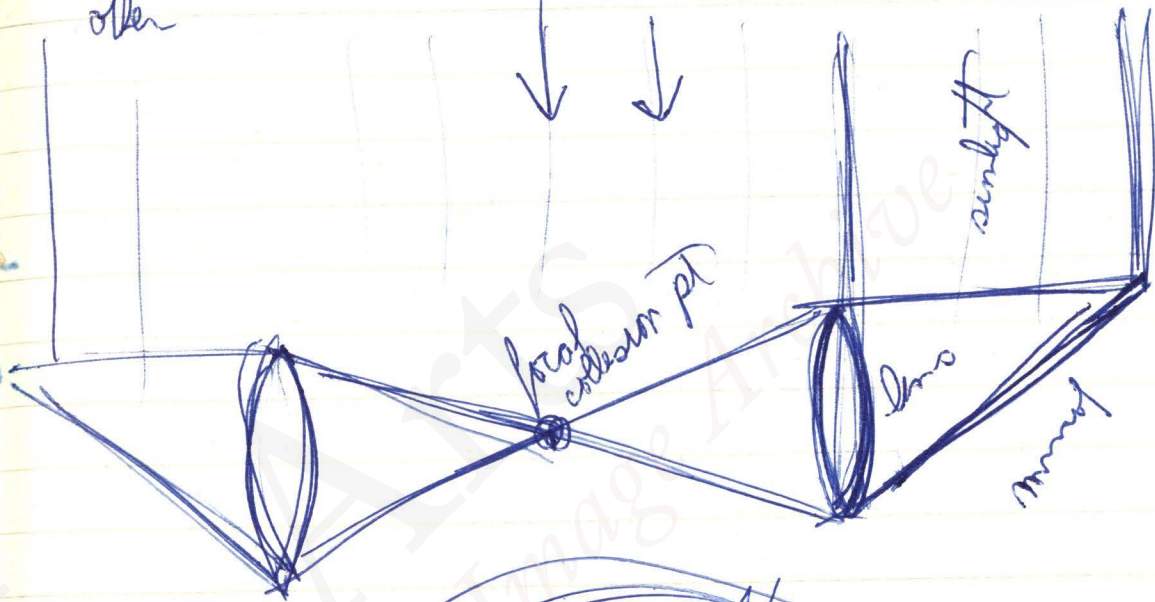


6 sets of  
4 collision guns  
fire sequentially

accelerator

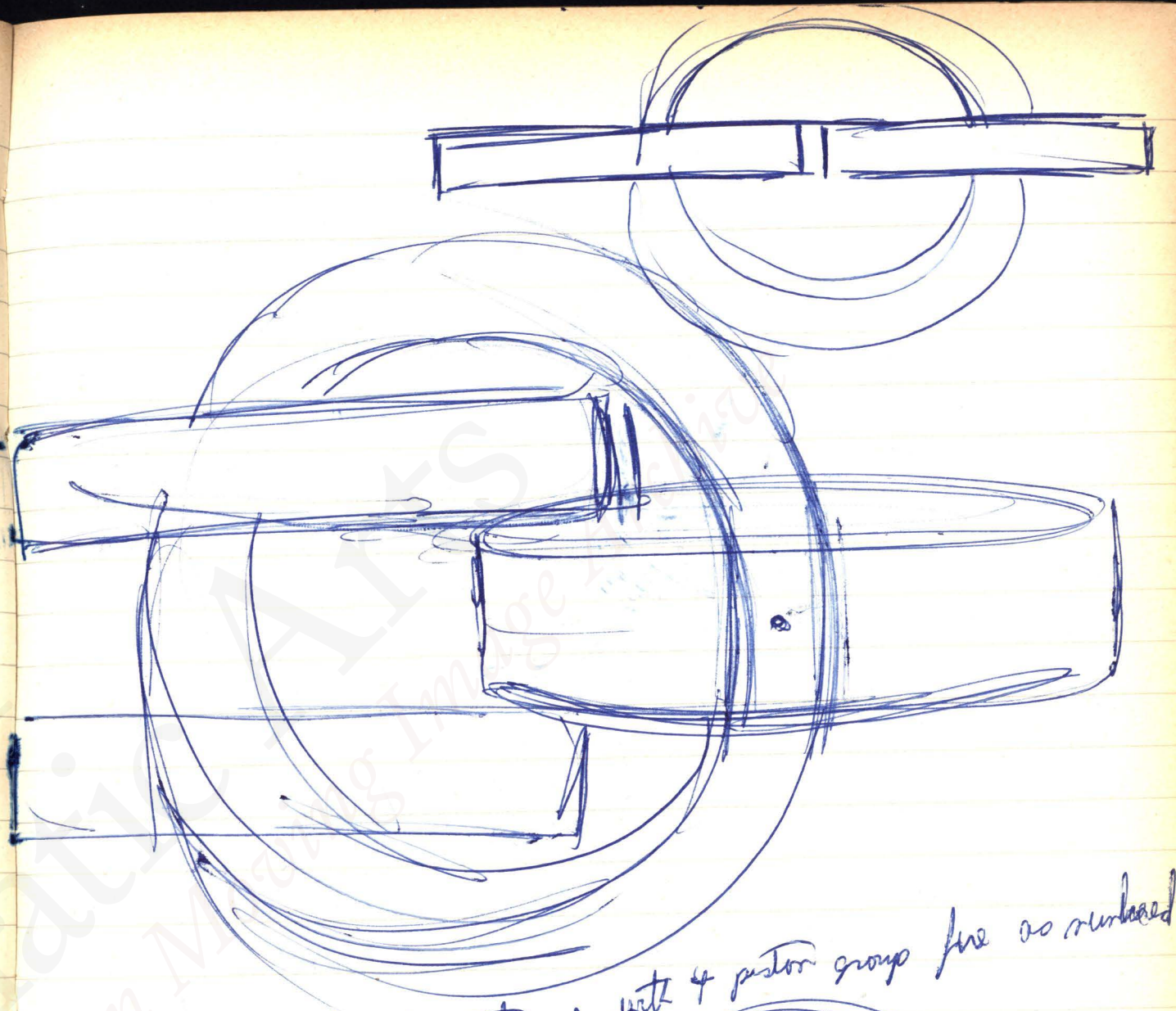
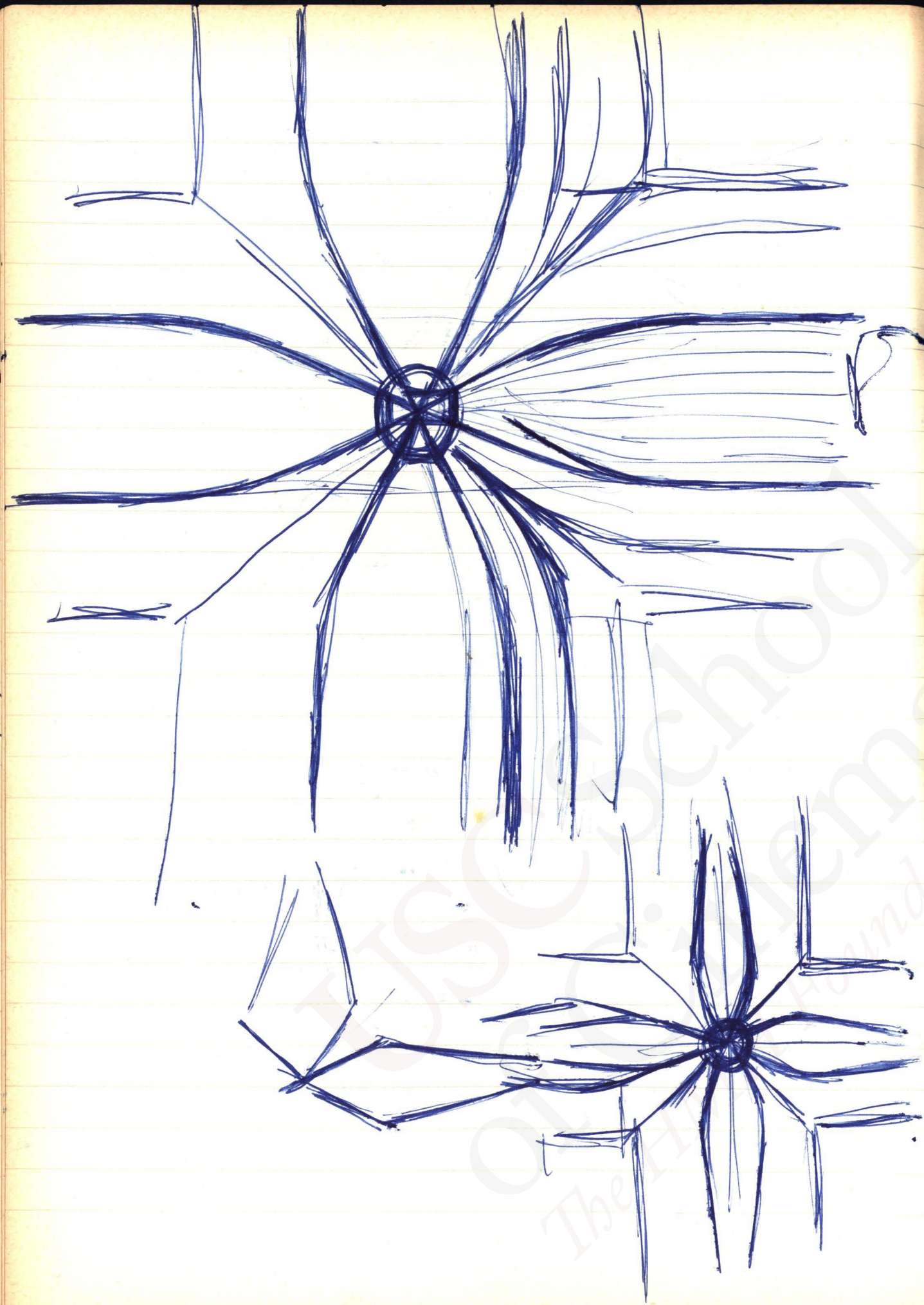


What would happen if you focused photons into each other

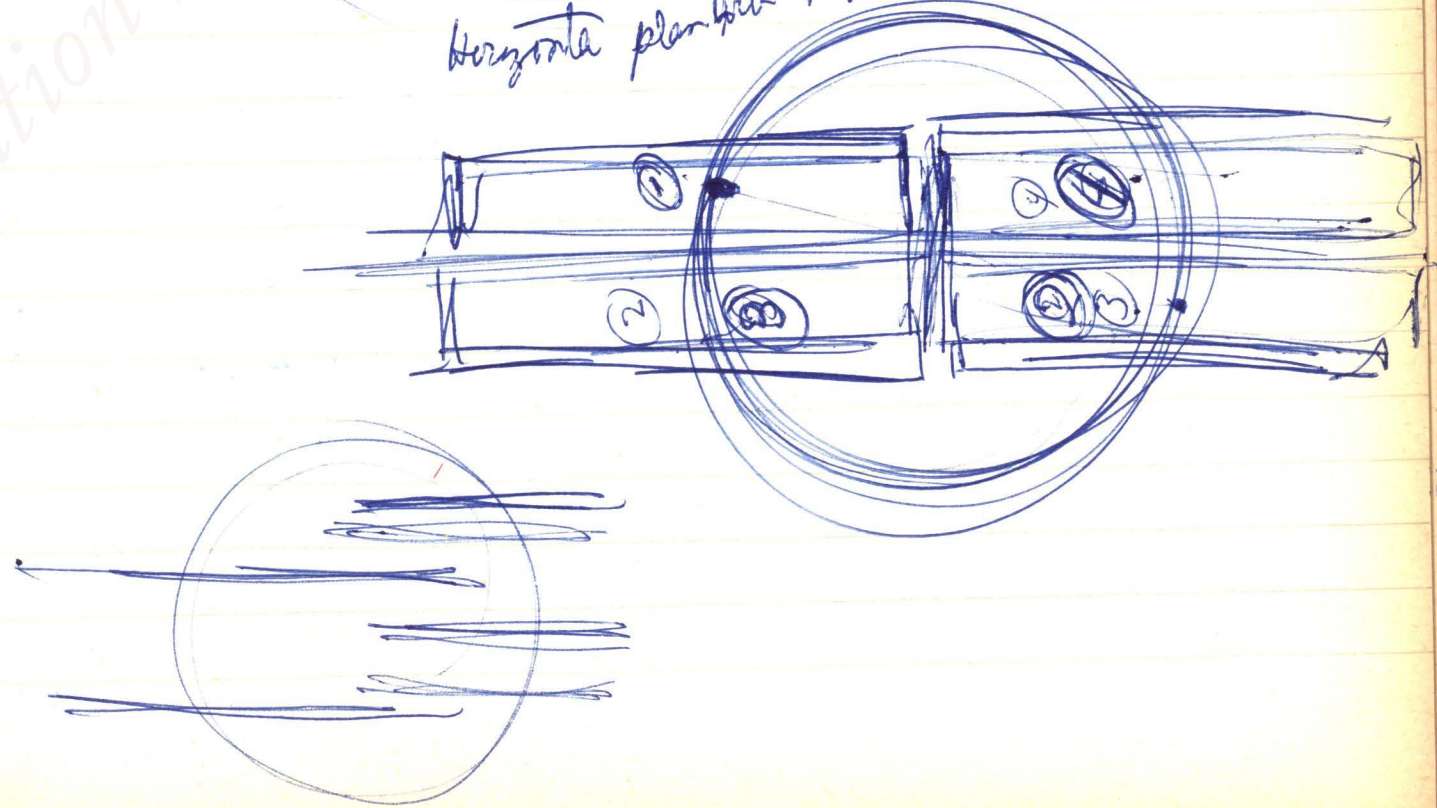


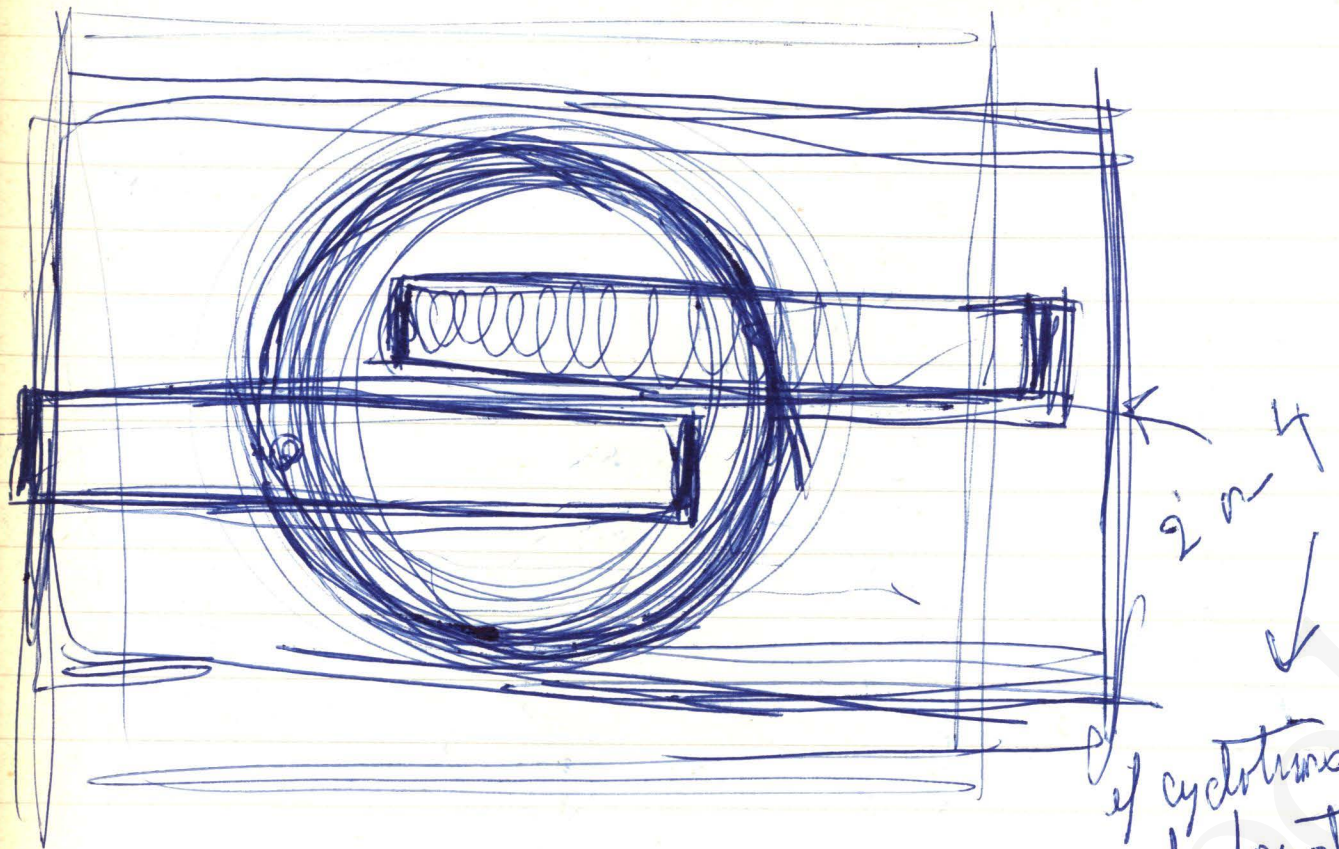
experiment

light  
arch  
lets connect  
collision pts.



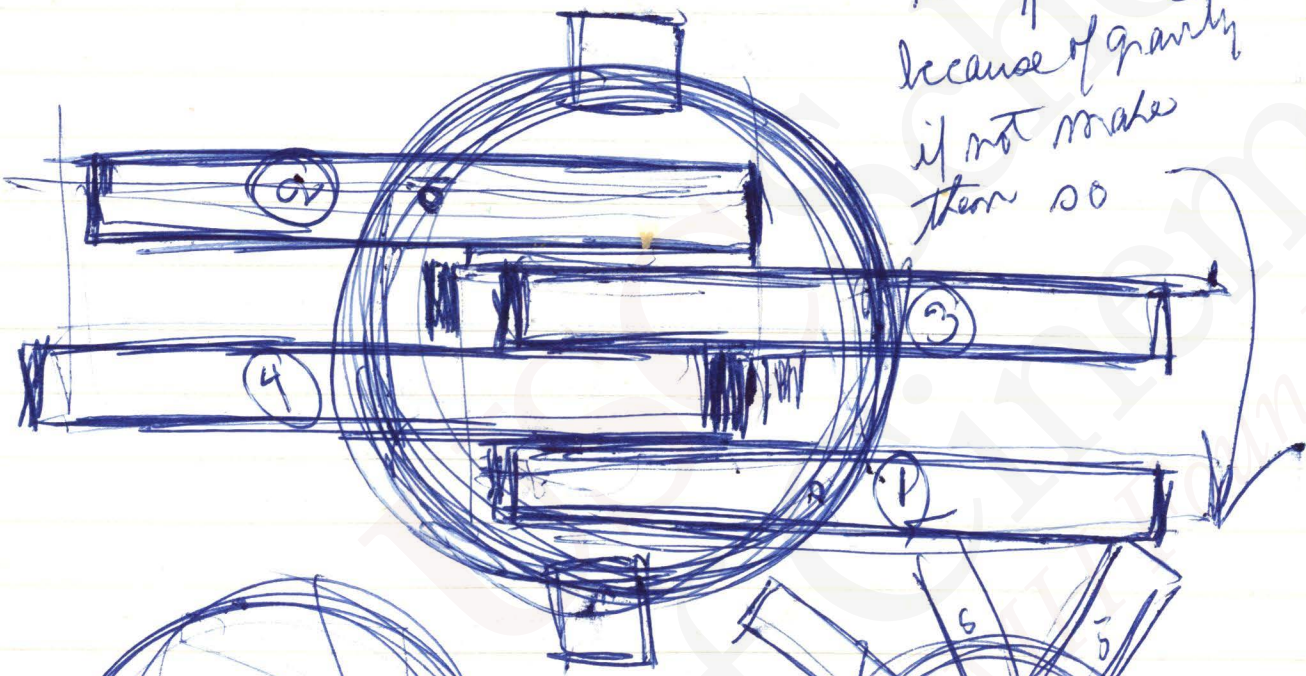
Horizontal plankets & piston group for 20 overboard





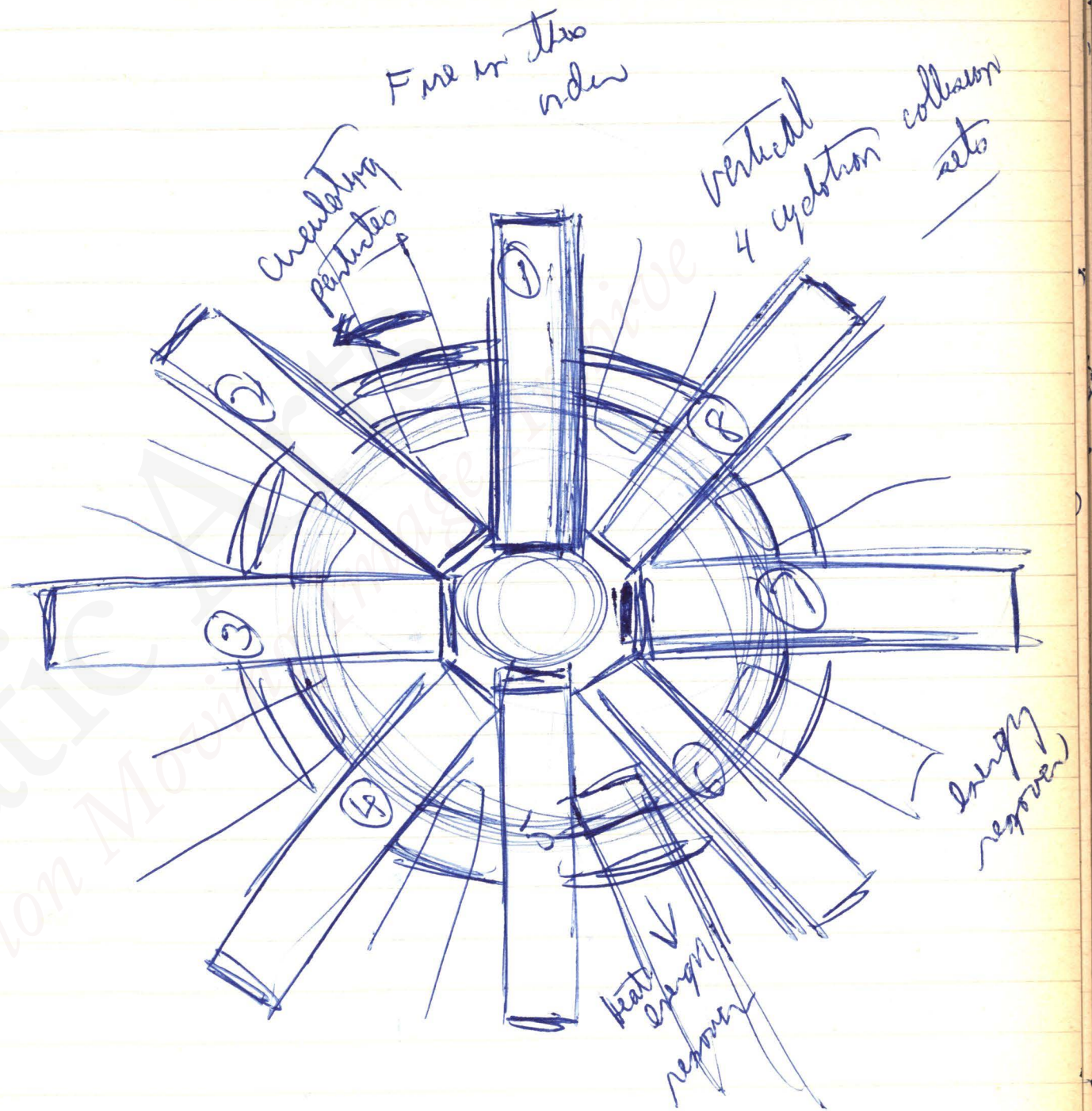
2 or 4

if cyclotrons  
must be horizontal  
because of gravity  
if not make  
them so



around  
horizontal ring

1  
2  
3  
4  
5  
6  
7  
8



Five or three  
order

circulating  
particles

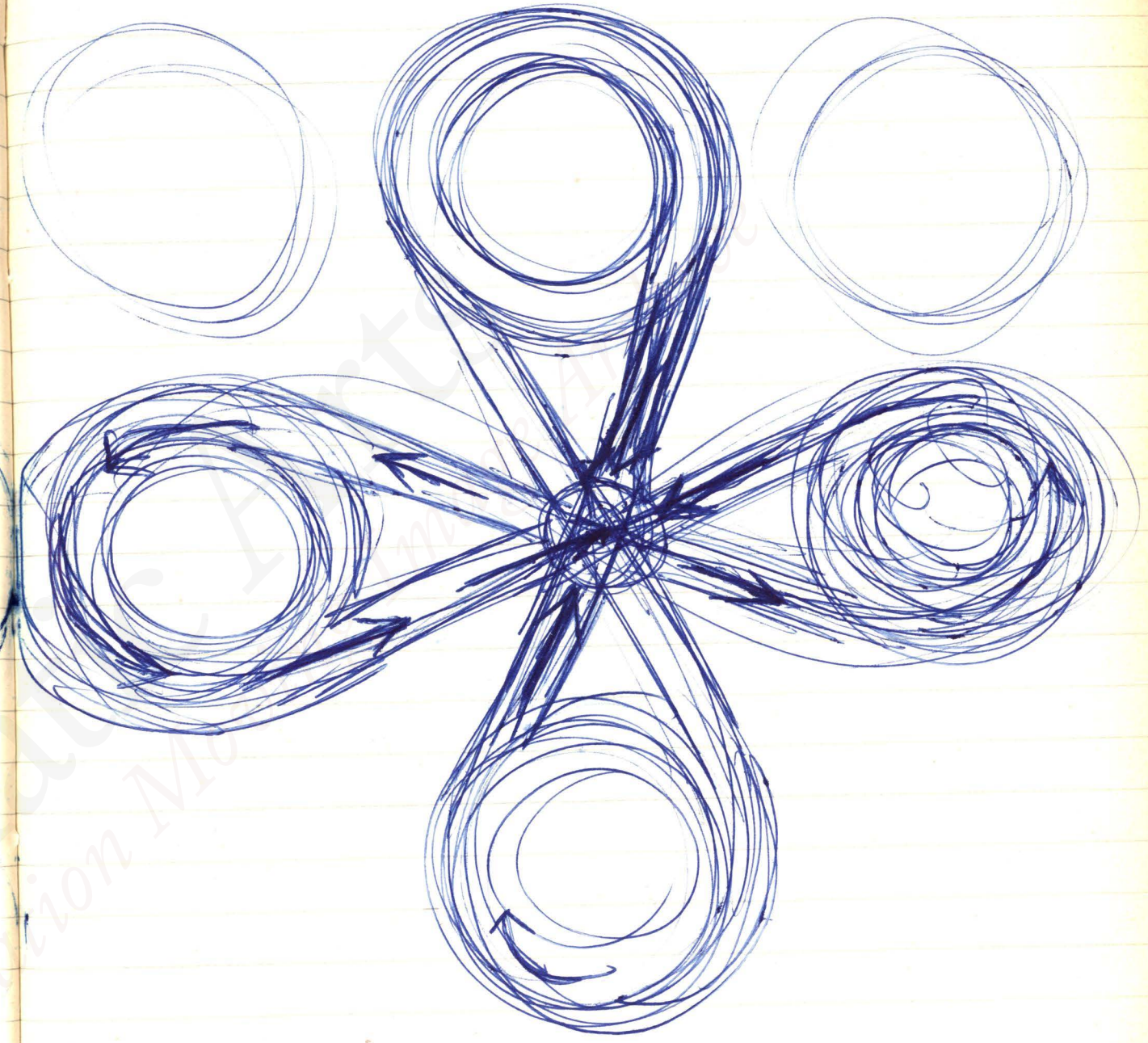
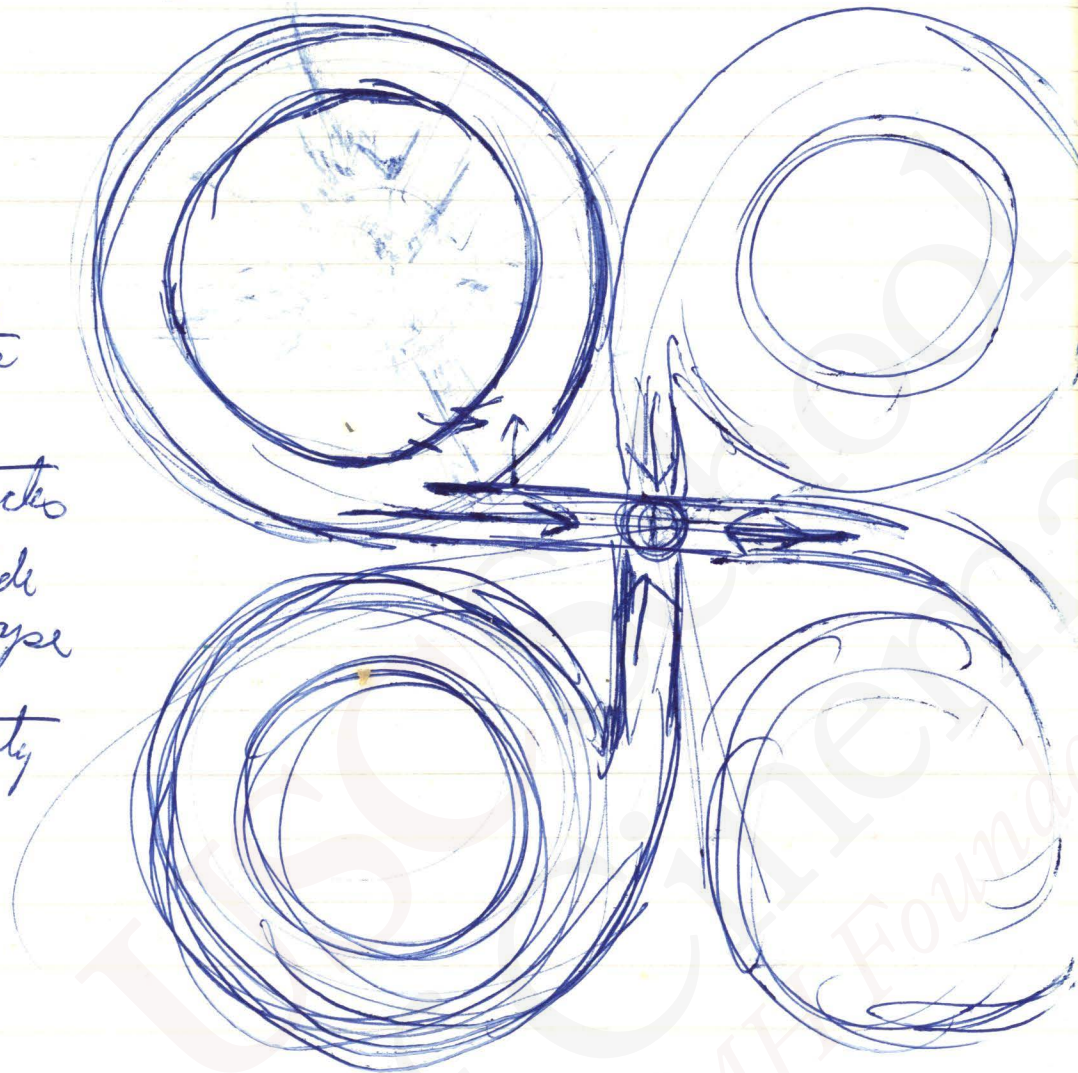
vertical  
4 cyclotron  
collision  
sets

energy  
recovery

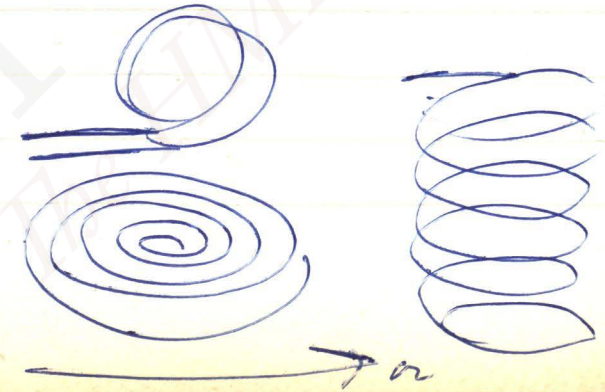
heat & energy  
recovery

If you can get away from  
 single pulses - (like explosions of a  
 piston engine) to continuous explosion  
 of a jet or rocket engine you are  
 in like Flyps

Through always  
 half open gate  
 only highest  
 energy particles  
 are on outside  
 & can escape  
 escape velocity



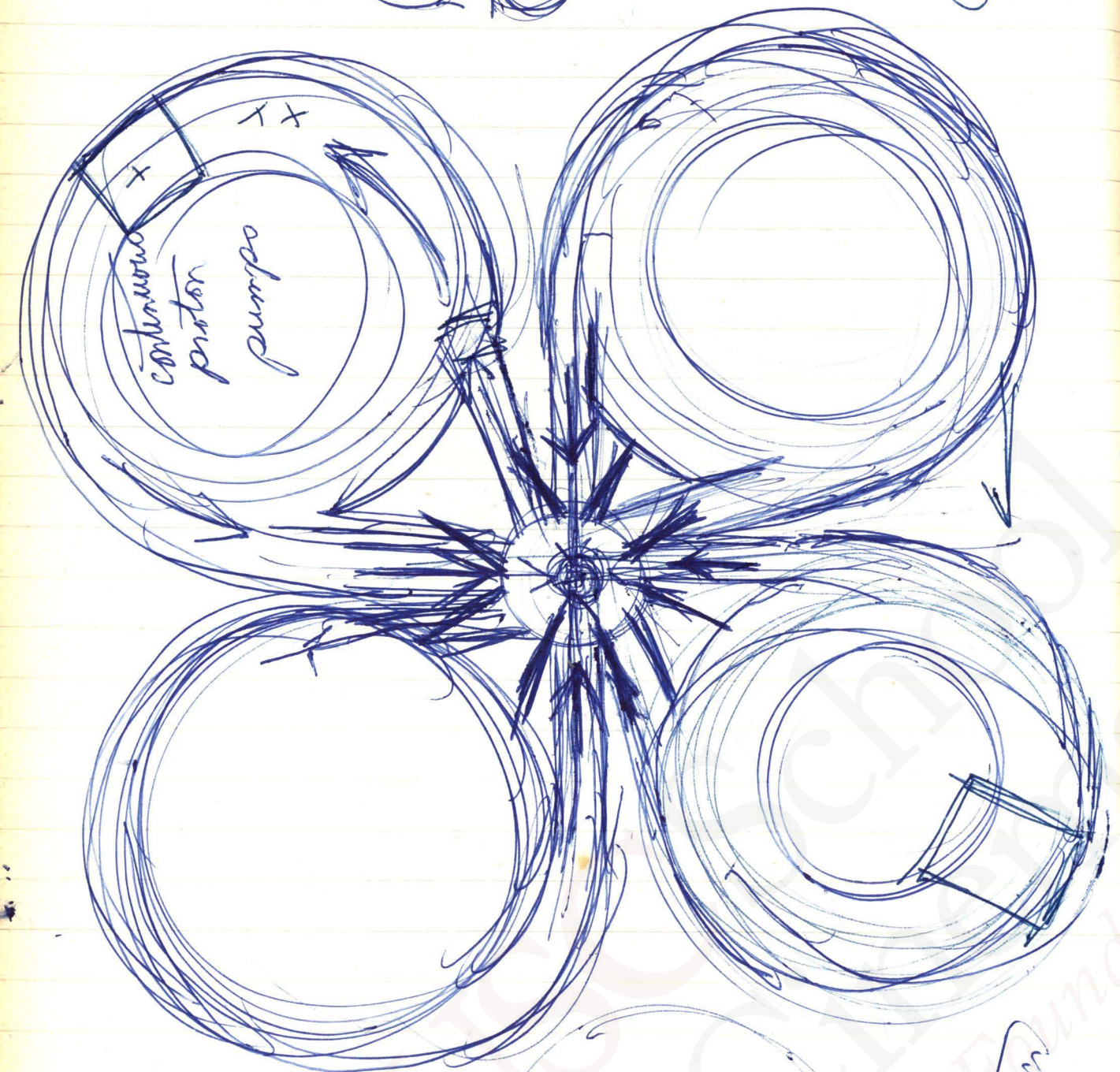
- particle enter - cycle through
- ① linear accelerator
  - ② ~~linear~~ cold accelerator
  - ③ spiral accelerator



with 2



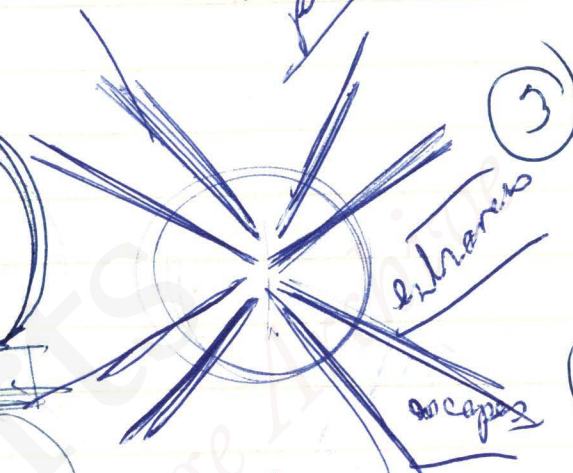
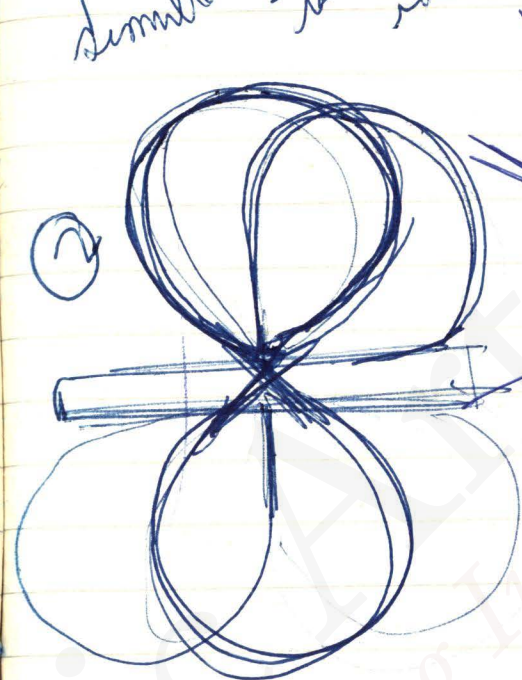
(P)



opposite 2 in pulse phase  
or all 4 in continuous phase  
needing less energy

100% compression  
of fuel

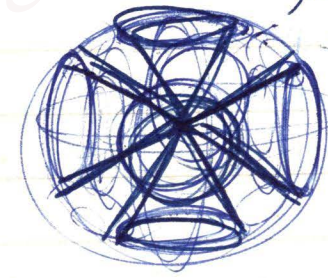
if have simultaneous discharge  
two vertical setups  
smaller vertical pumps



if same state  
is exit & J is  
entrance then need

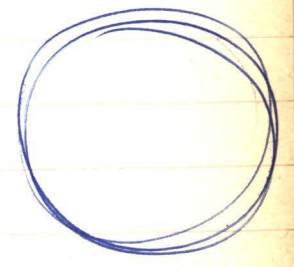


if have sequential  
then can have ~~two~~ horizontal set  
then vertical set - or four



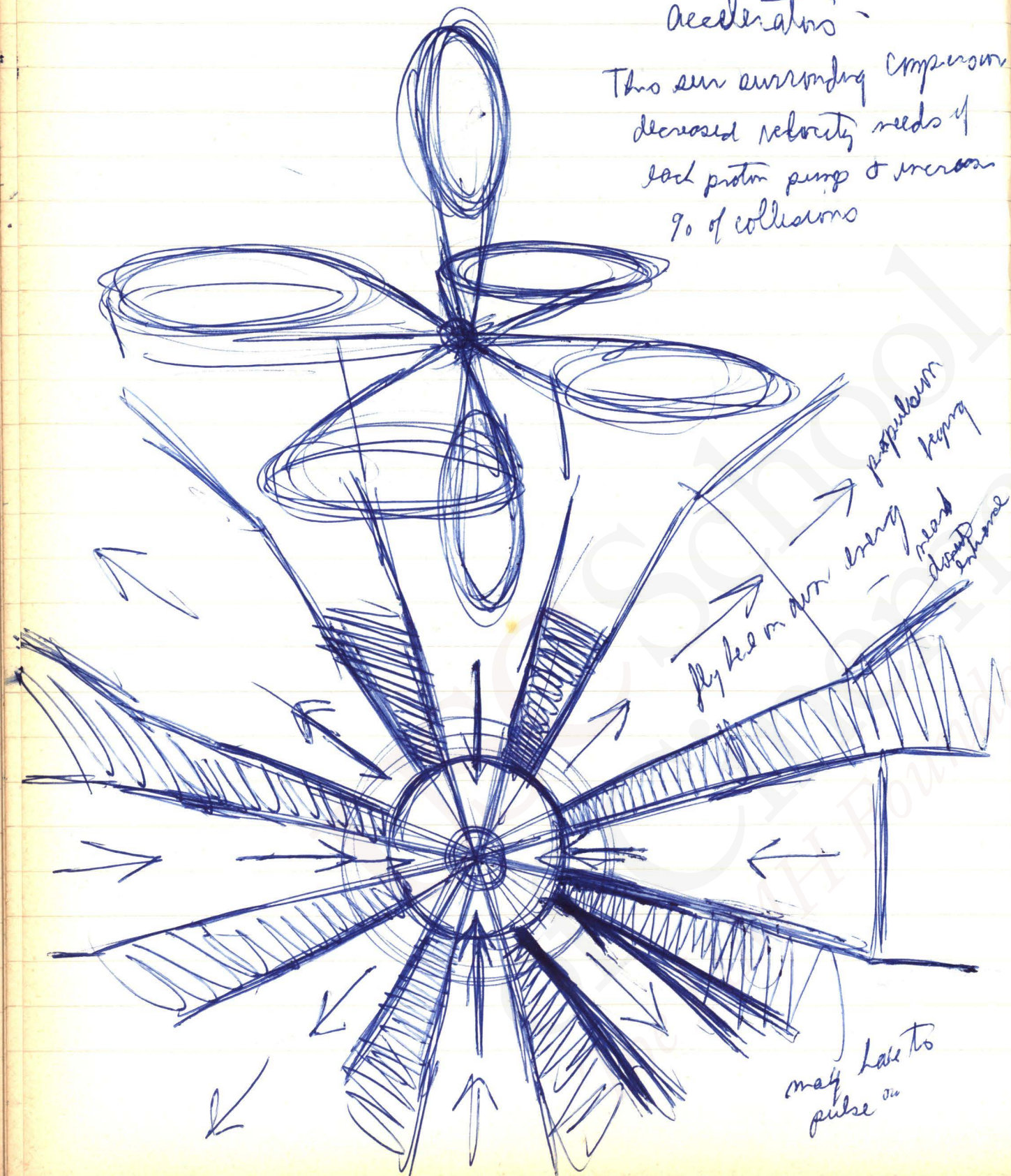
ring of  
opposite pairs in a row.

proton compressor area - spherical  
side view need vertical  
3/4 view

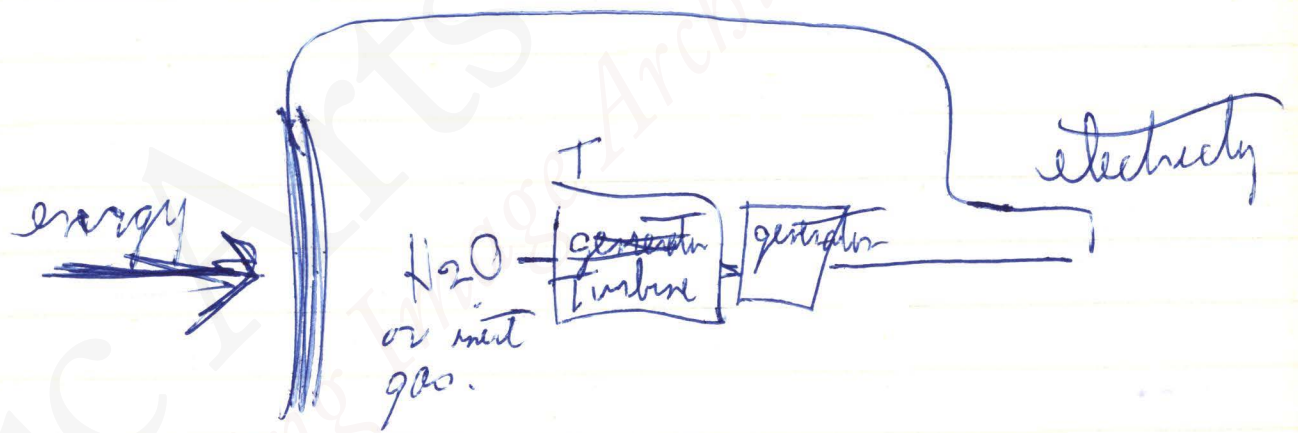


continuous  
six pump fusion engine

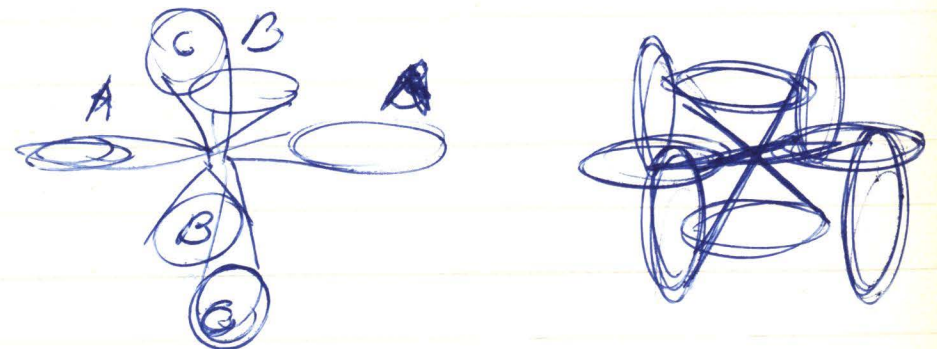
Can have 2 vertical  
accelerators -  
This can surround compression  
decreased velocity needs of  
each proton pump & increase  
% of collisions



for heat removal surround whole thing with  
direct electrical conductors - (semiconductors  
with which in turn are cooled by <sup>not good</sup> water jackets  
The two combine to isolate the system & give electricity

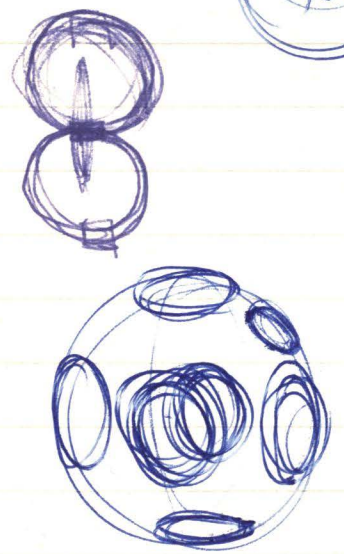
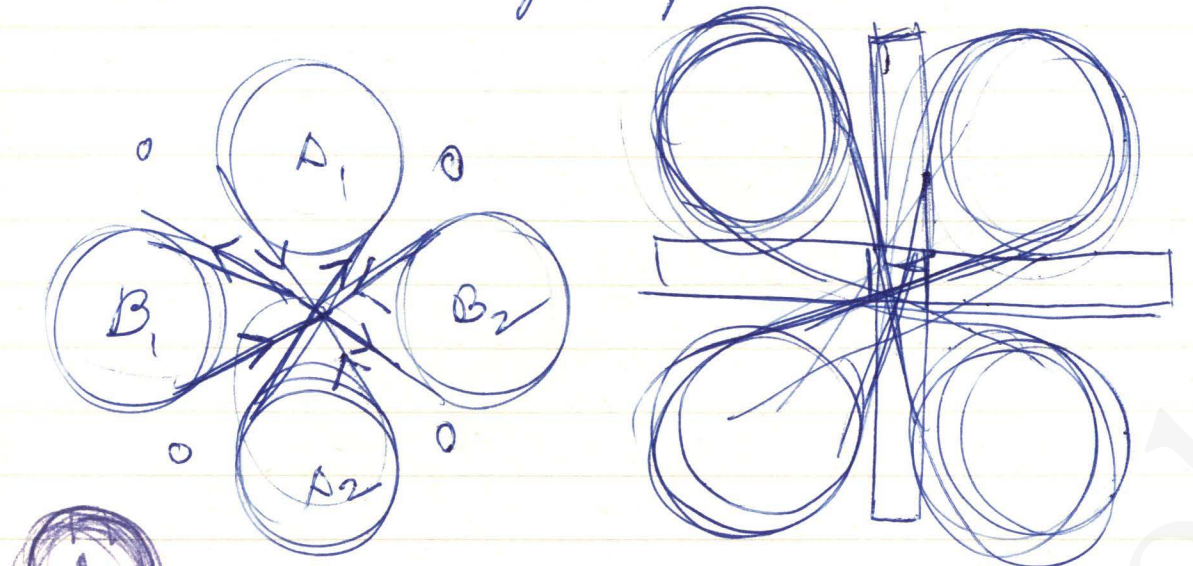


If systems must be pulsed have -  
each opposing system of 2 or 4  
fire at a time -



question ~~can~~ must all accelerating systems  
be vertical.

if most phase pulsed - - Have  $B_1$  &  $B_2$  taking protons  
as  $A_1$  &  $A_2$  is firing them & vice versa



can have 4  
4  
4

12 sets of  
proton motion  
working simultaneously or  
in phases

sup so all you need is the best number

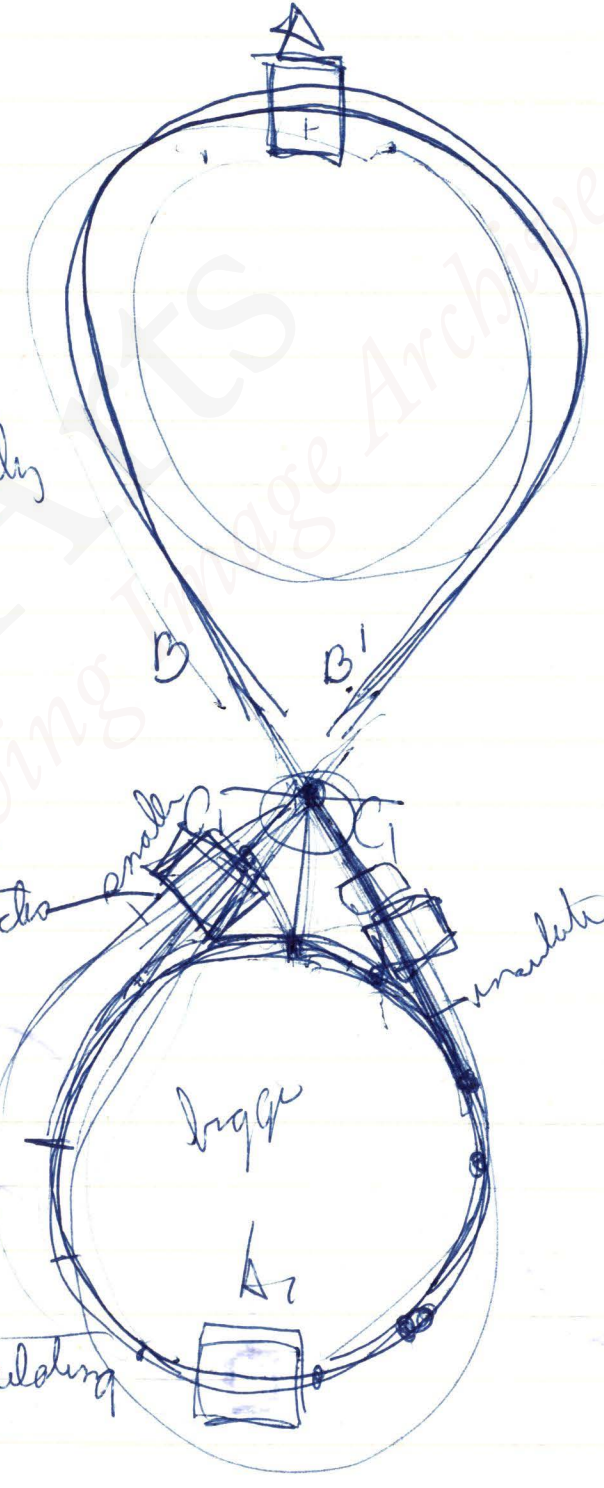
6 continuous proton propellers

with continuous absorption & reacceleration  
6

2 Such while 2 bombard

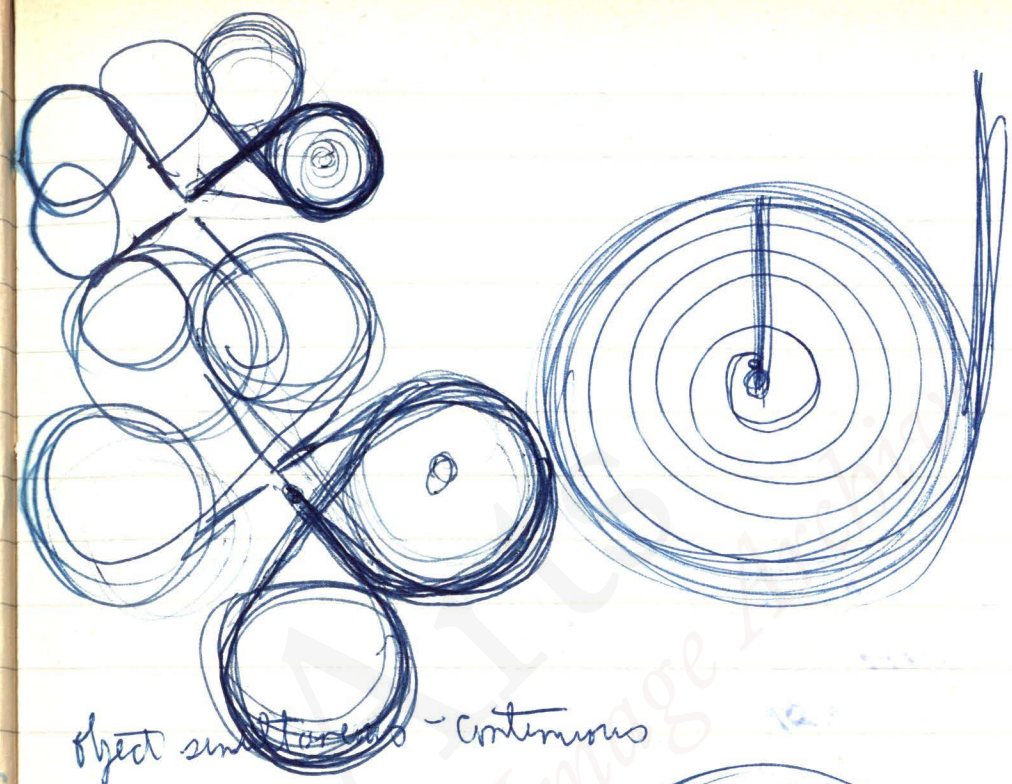
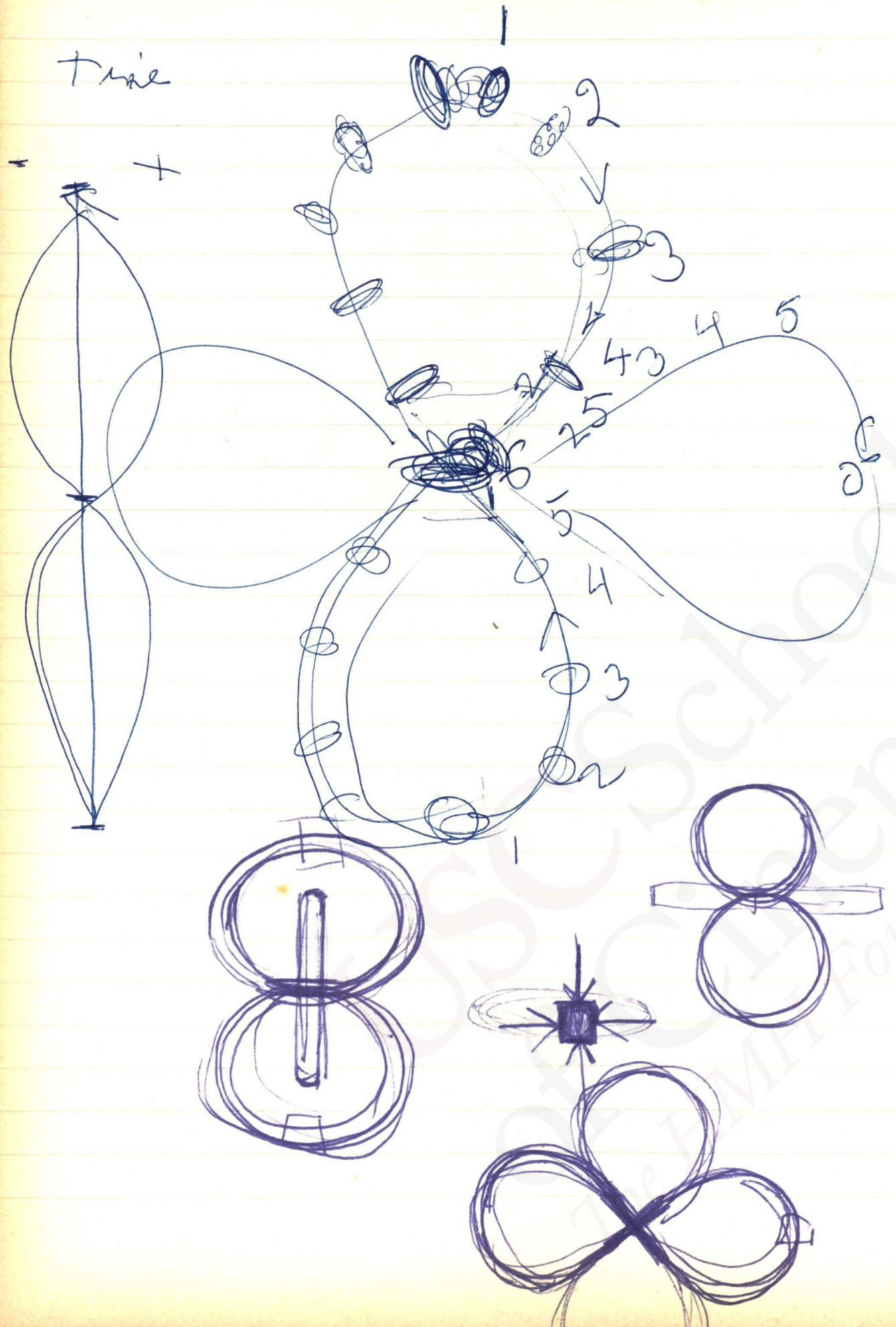
4 cyclotrons  
pulse  
simultaneously  
or sequentially

adds speed  
so that particles  
going to  
ground zero  
catch up  
with slower  
route circulating  
ones



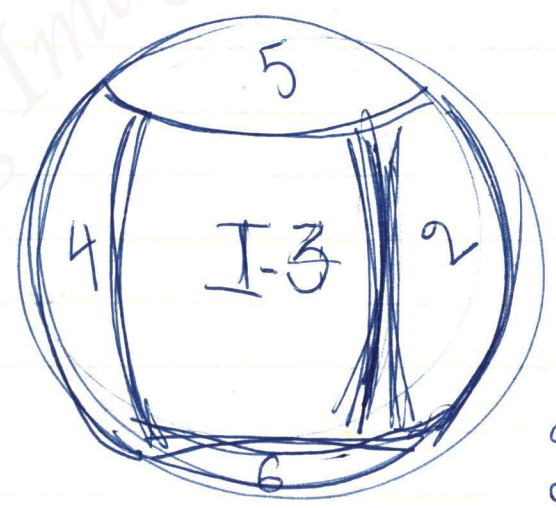
What are the possibilities of  
having the  
protons go  
around in  
same track  
in two different  
directions  
simultaneously  
Neg Pulse  
pulling & Positiv  
pulse pushing  
both simultaneously  
so entrance  
& absorption  
streams are  
both greater

$A + A_1$  pulse simultaneously  
at instant streams reach focal pt zero - pulser  
sucks & instant it passes  $\beta$ -pulser pushes



Best idea -  
a six sided collision  
F

object simultaneous - continuous  
reverse direction



6 sided  
proton  
compression  
simultaneous -  
pulsed -  
or sequential -  
& continuous

Questions - (1) Can you have continuous flow  
(2) Can you have simultaneous -  
2 directional crossing



## Thoughts on Aesthetic Form -

It is not so true that we don't "notice" the jump from one shot to another in a film. We do - the big difference - the difference that makes us more or less conscious of the change - is our acceptance of the next shot, if the new shot ~~is~~ feeds the growing changing nature of our appetite as we strive to penetrate deeper & deeper into the reality of a situation than we accept it hungrily - devour it and are ready for the next.

It is exactly like giving electrons a boost every time they ~~reach~~ reach a given position in the race track.

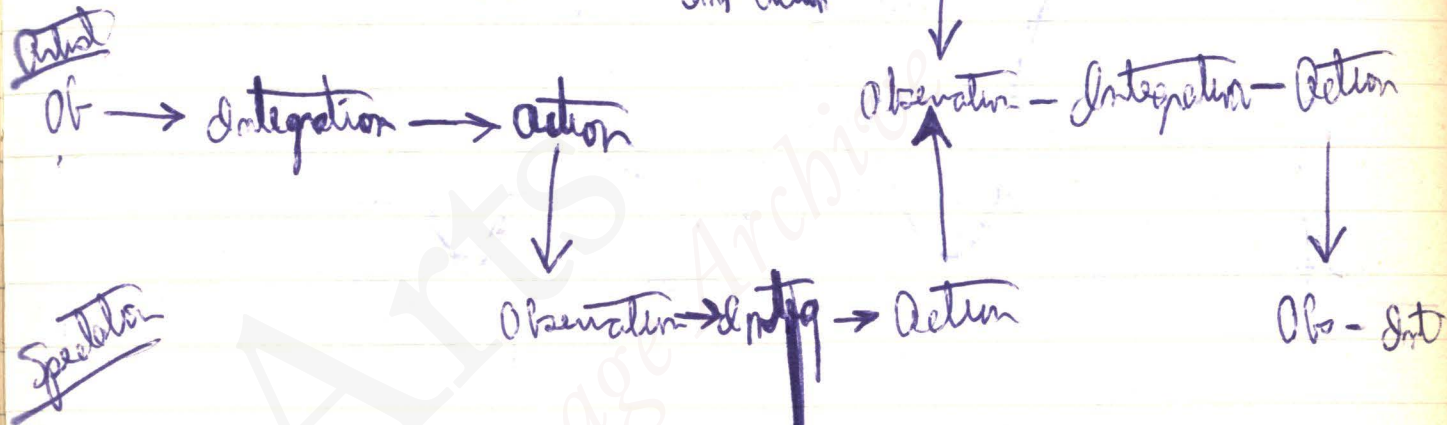
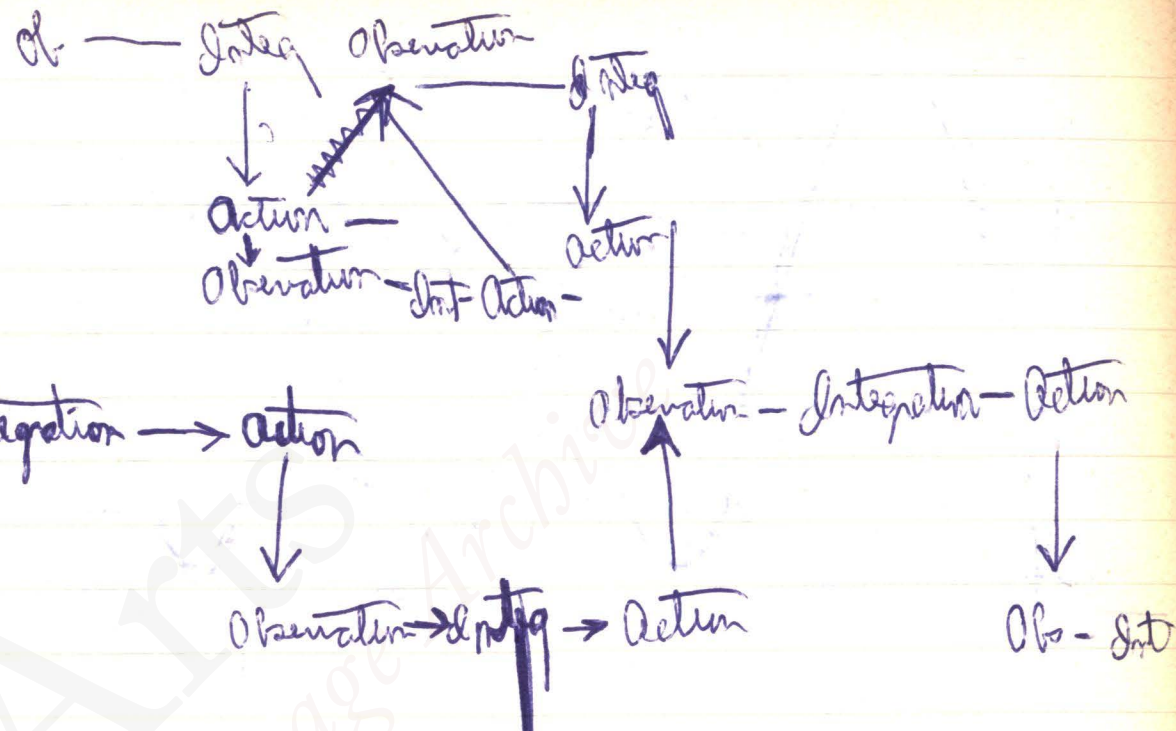
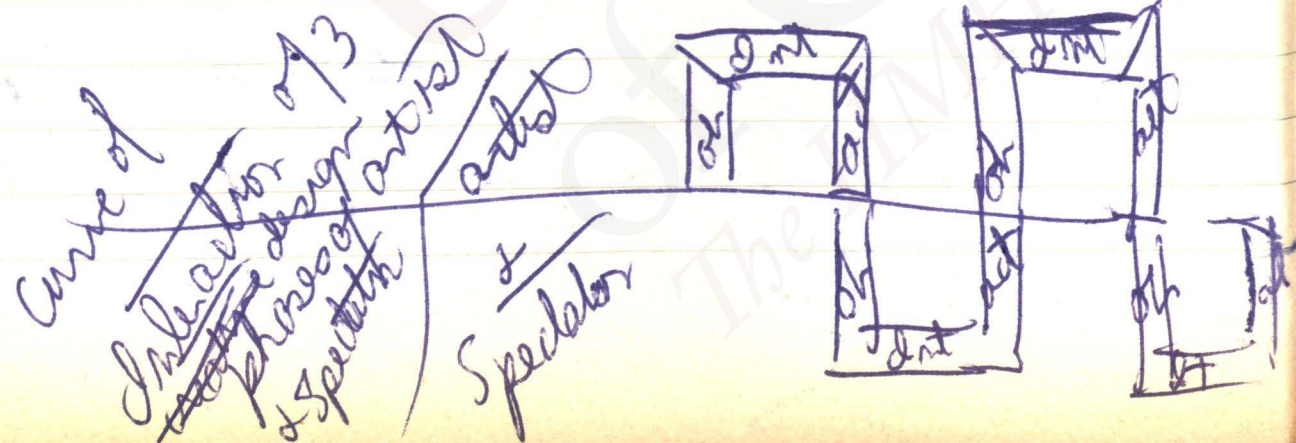
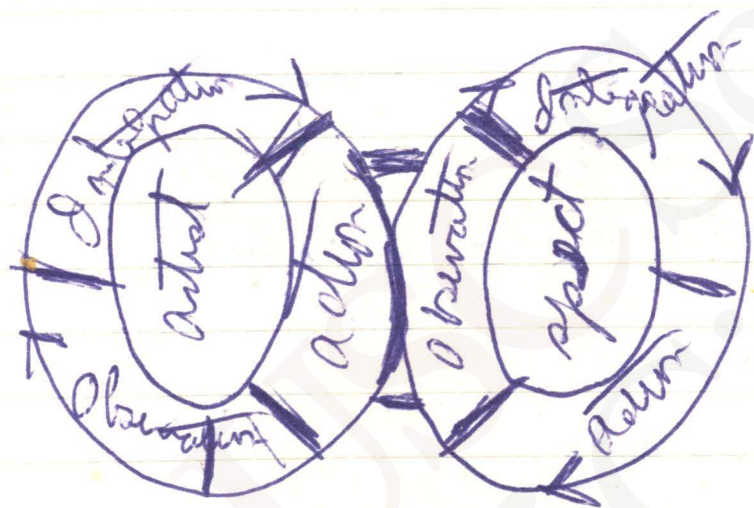
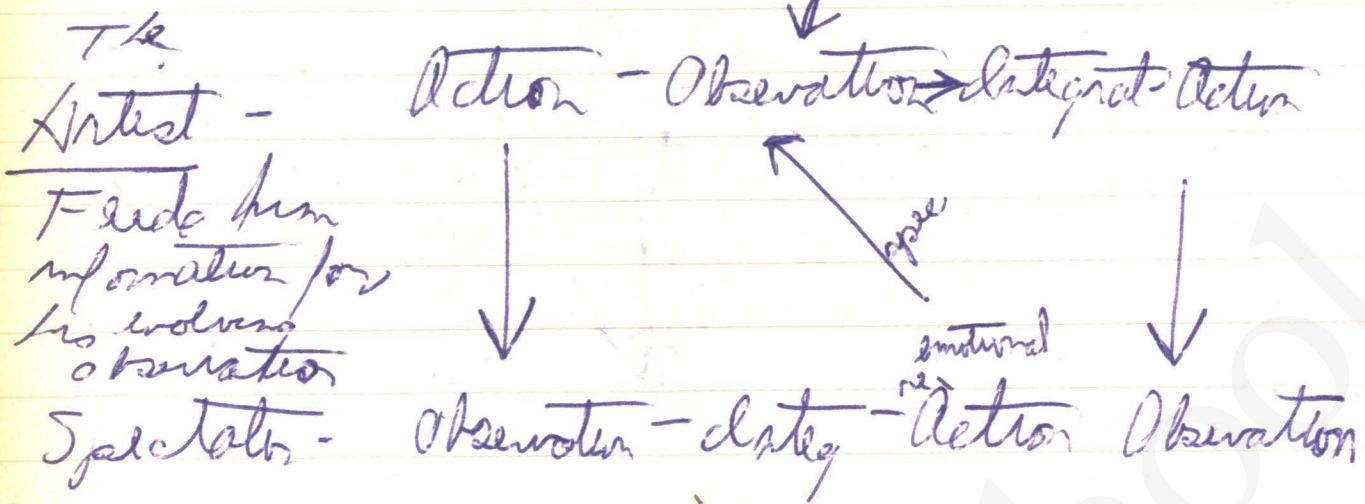
If the <sup>right</sup> boost or new bit of information is fed ~~at~~ to the spectator at the <sup>right</sup> instance - he is glad to accept its newness - Only if the new fact is not the one desired to ~~be~~ does the spectator push it away & confusedly ~~saying~~ - that newness of change of information bit in itself

is distracting unhappy process. ~~The~~ No change or jump in itself is like free - a fact of life - only its correctness is of importance & so the only thing we can study & manipulate.

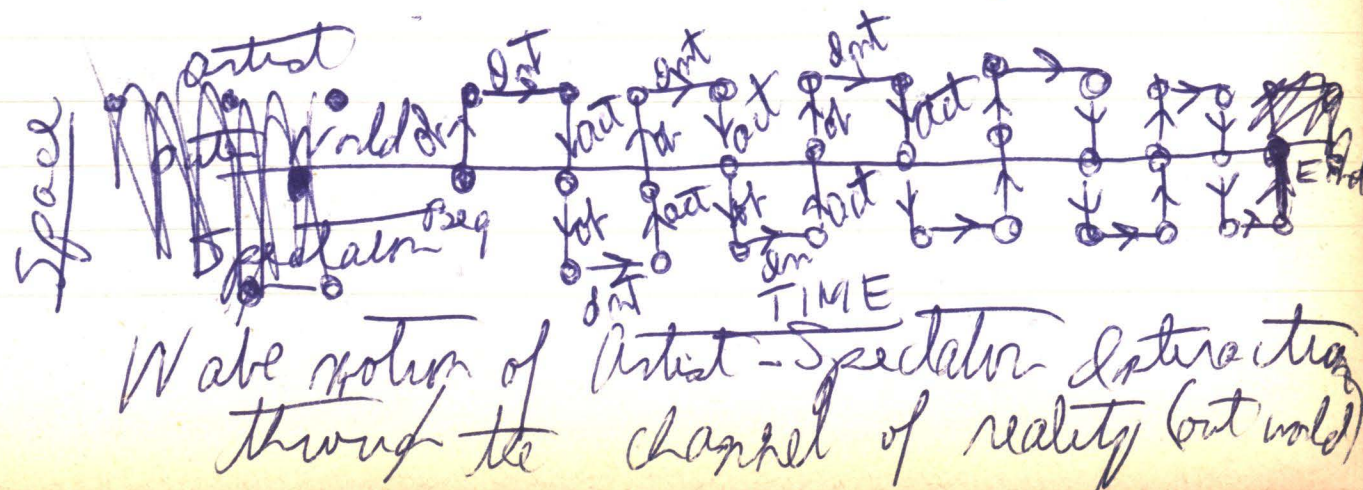
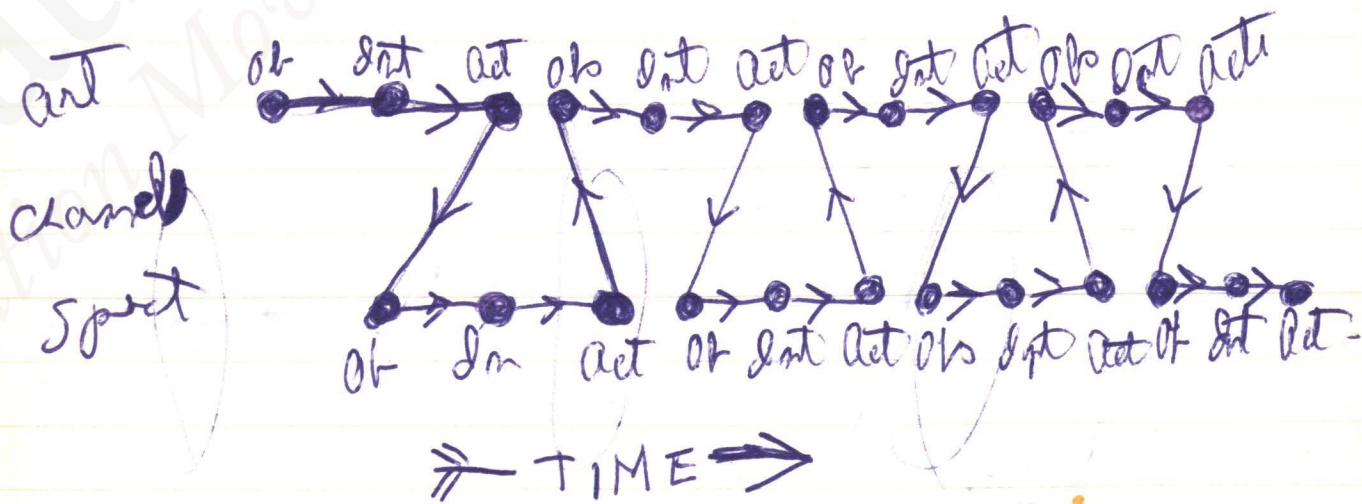
Hence the new elements offered up for ~~the~~ assimilation - should be those desired & needed by the spectator to enhance his ~~desired~~ involvement & understanding of a situation. The greater the artist - ~~the~~ like the greater the doctor or cook - the more he knows - even than the spectator himself what he needs & desires - Hence the joy of surprise and ultra-calibration. In other words the spectator or recipient knows

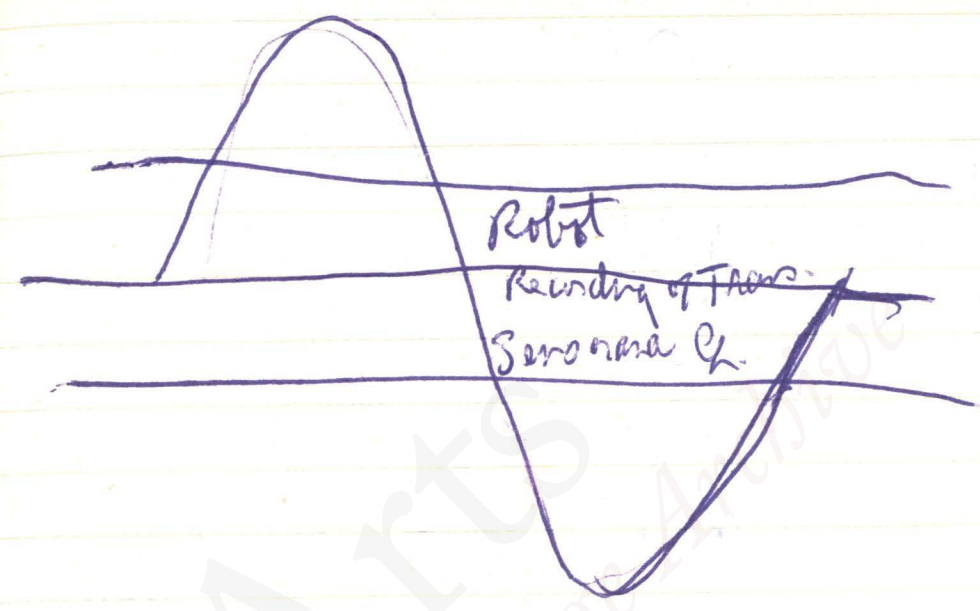
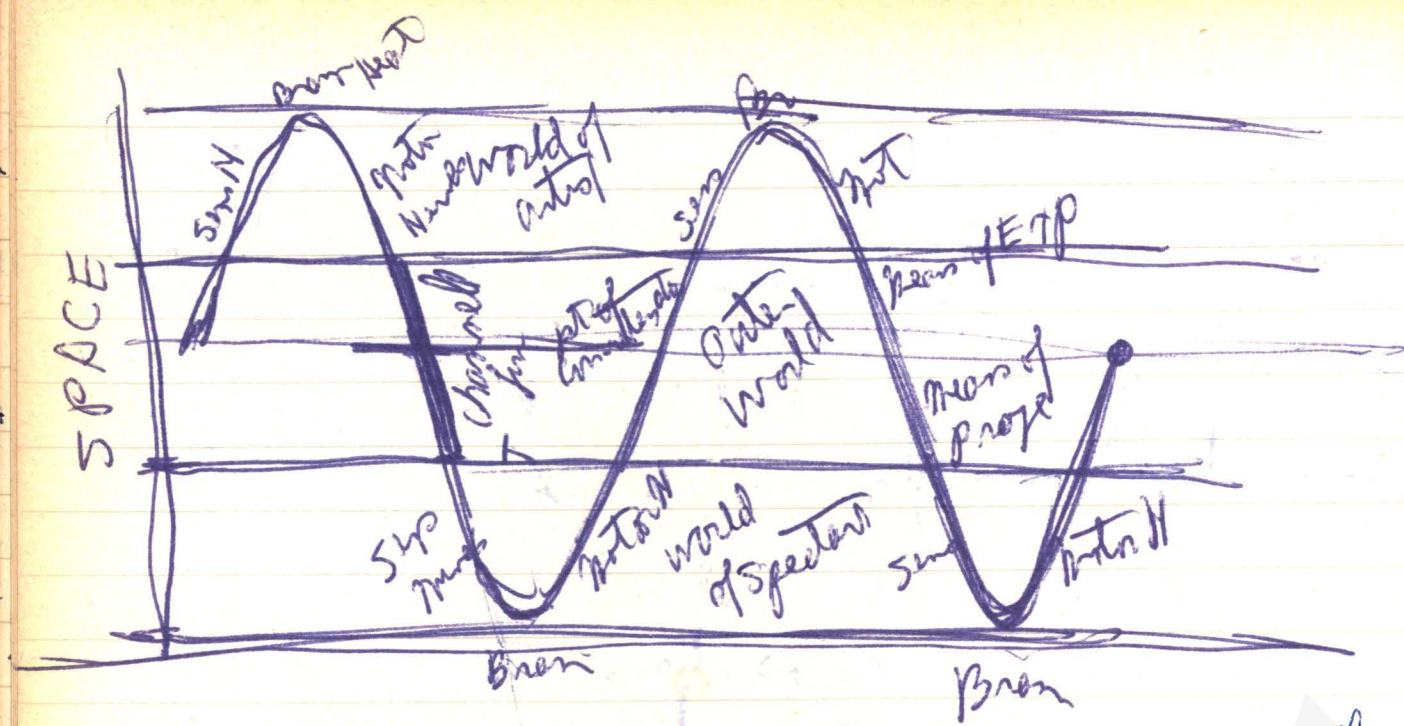
1. What he doesn't want
2. Knows vaguely what he does want
3. Is capable of ~~appreciating~~ responding ~~when~~ when he is fed exactly what he (unconsciously) wanted - When the cook puts ~~it~~ ~~right~~ ~~at~~ just the right spot

the interesting dynamics of the situation might be diagrammed in the following way -

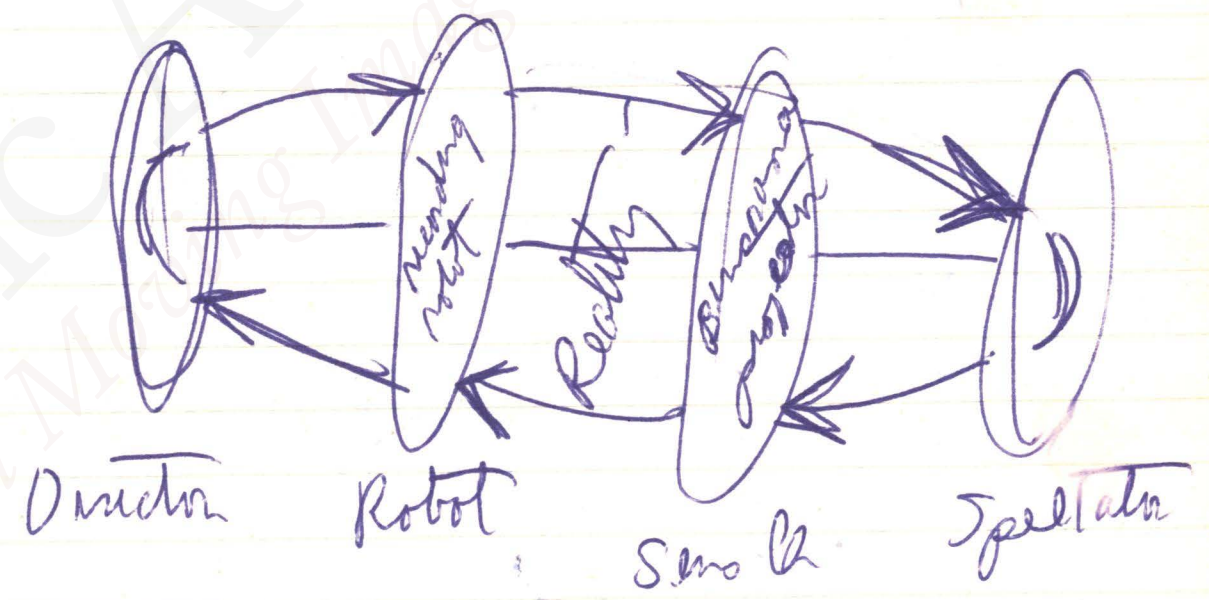
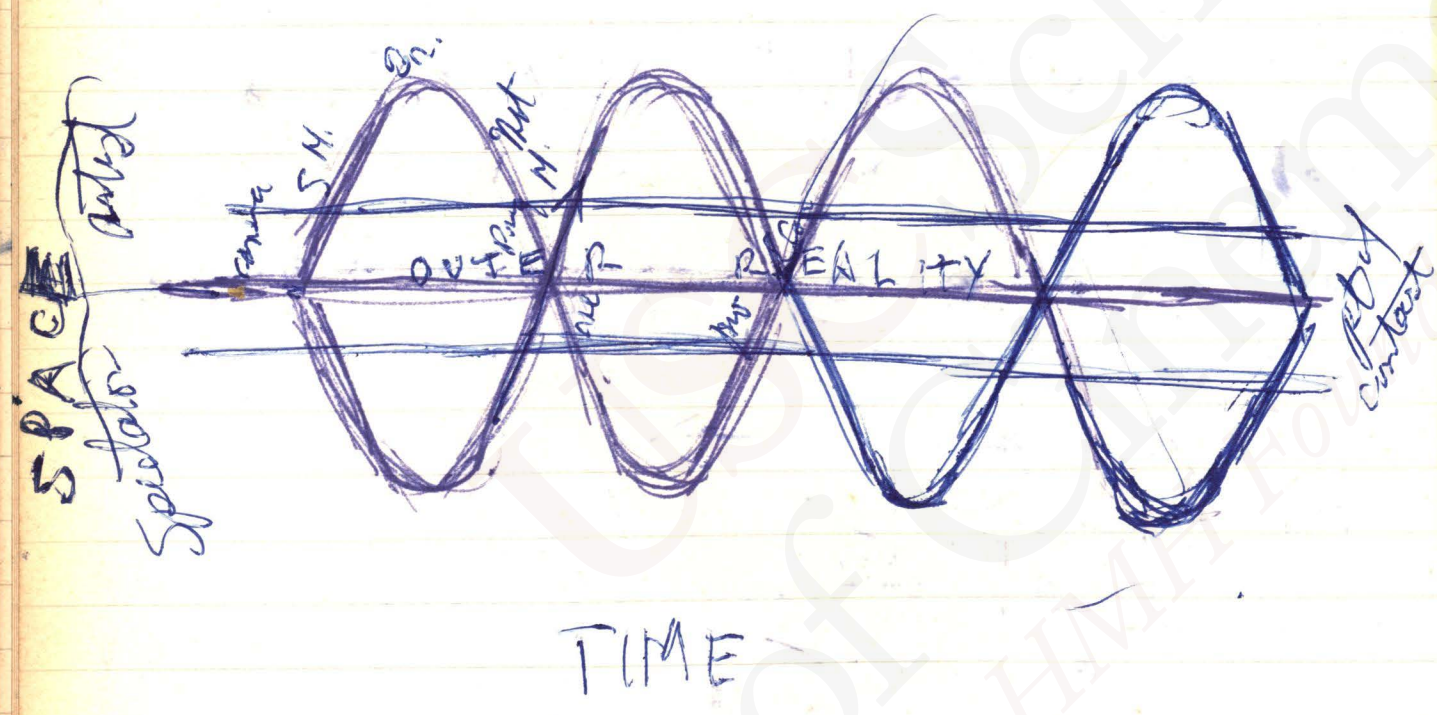


Integration - Action - Observation Integ - Act

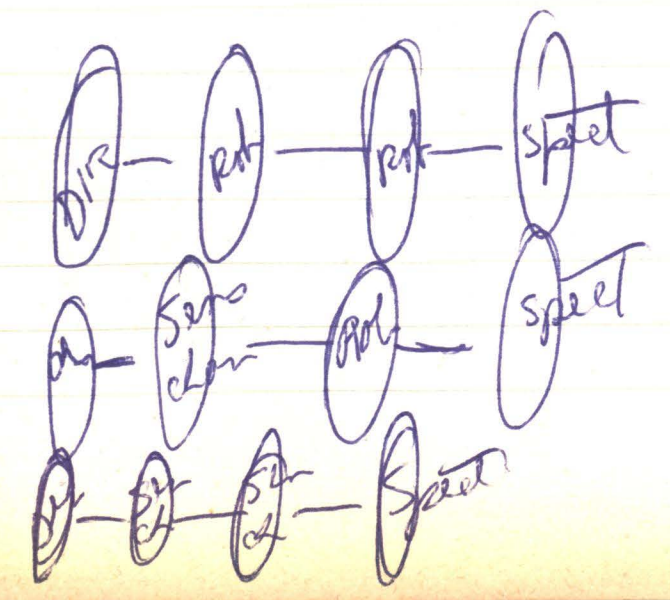




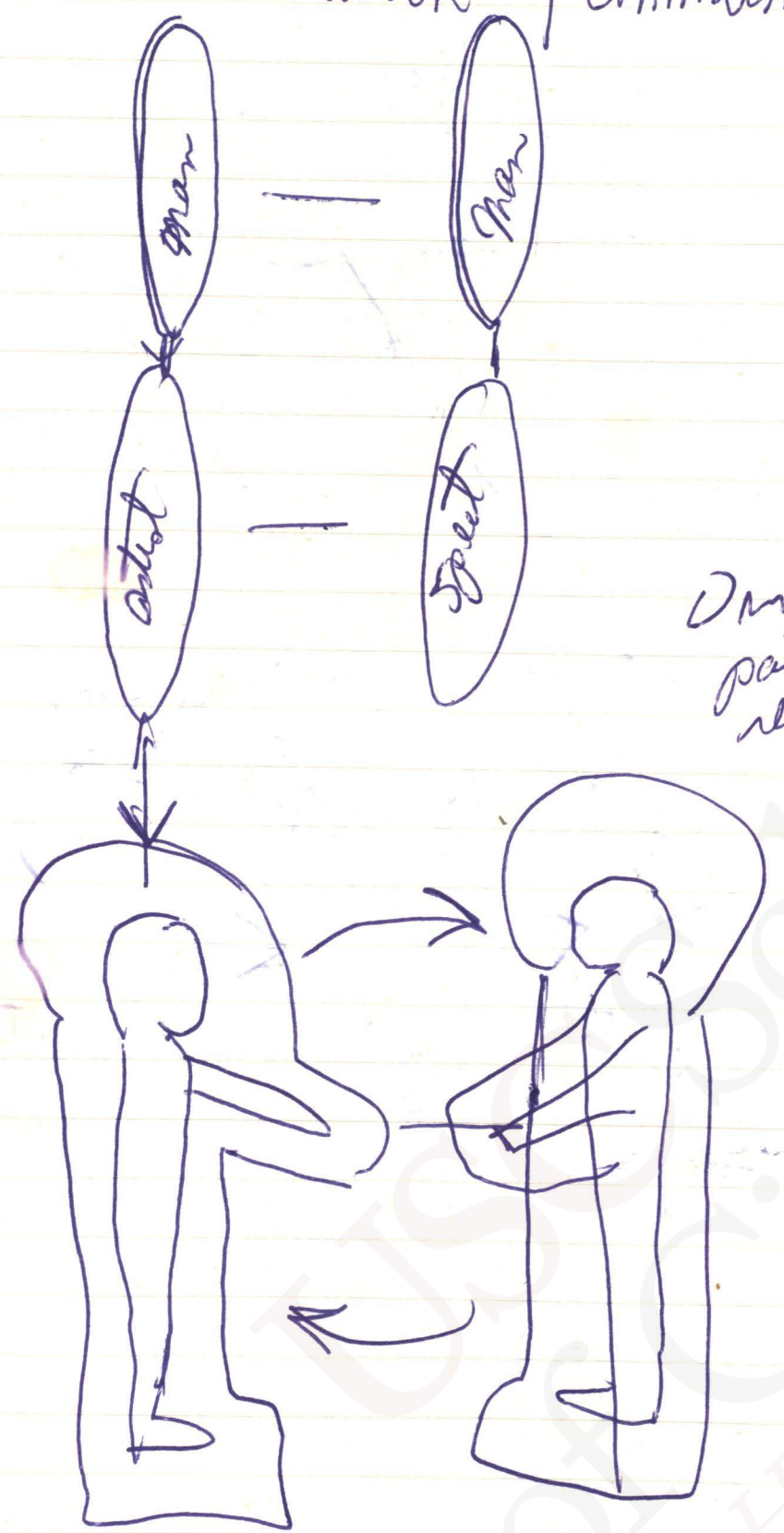
Curve of Communication - 4 waves



Several Combinations



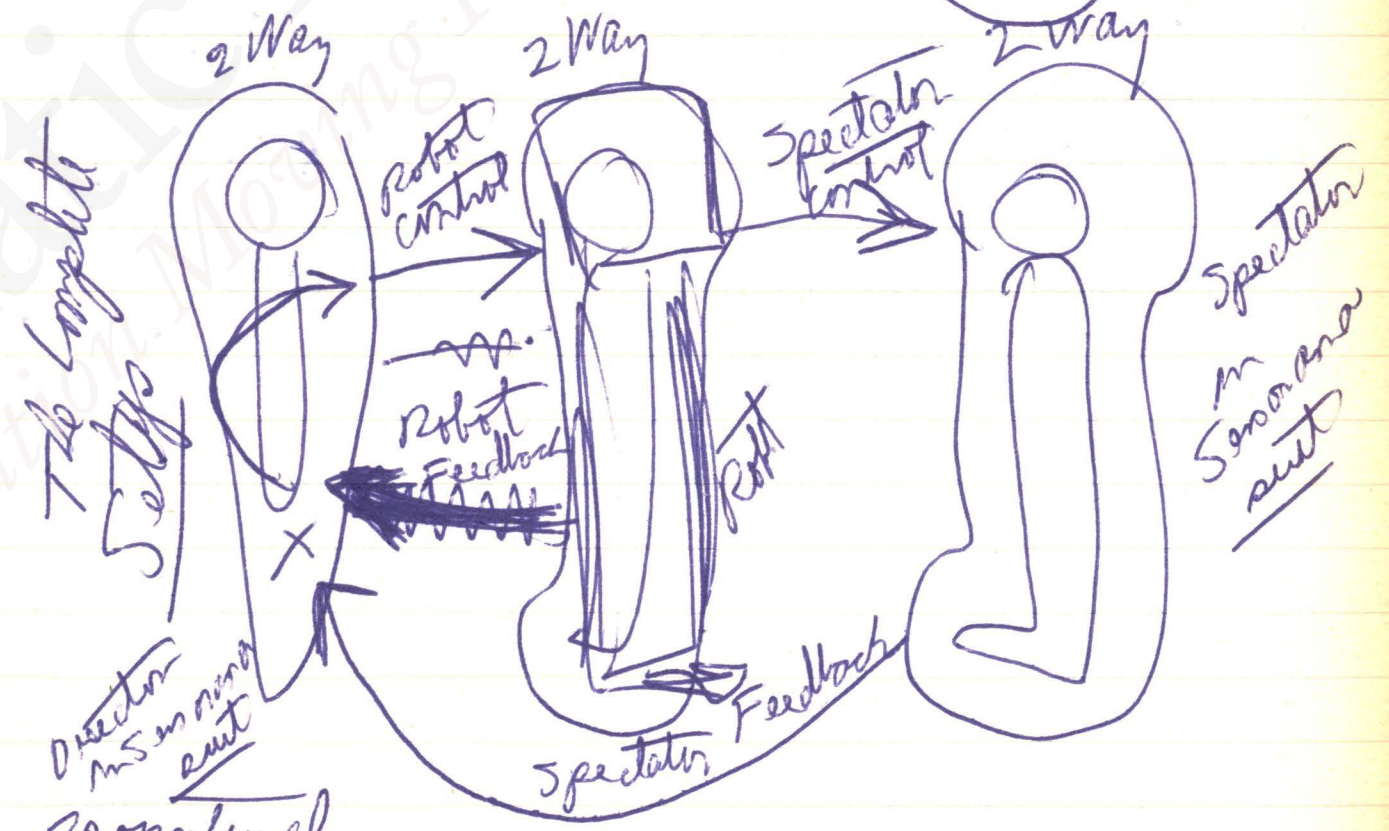
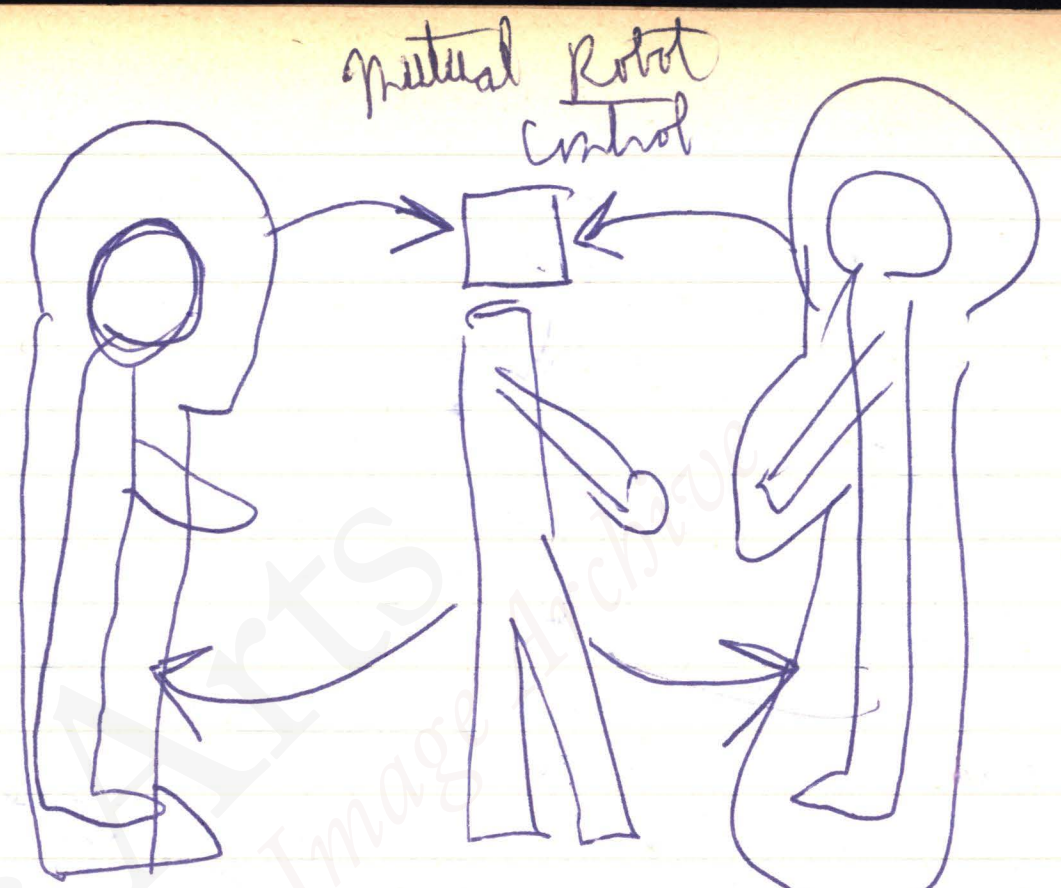
# The Evolution of Communication



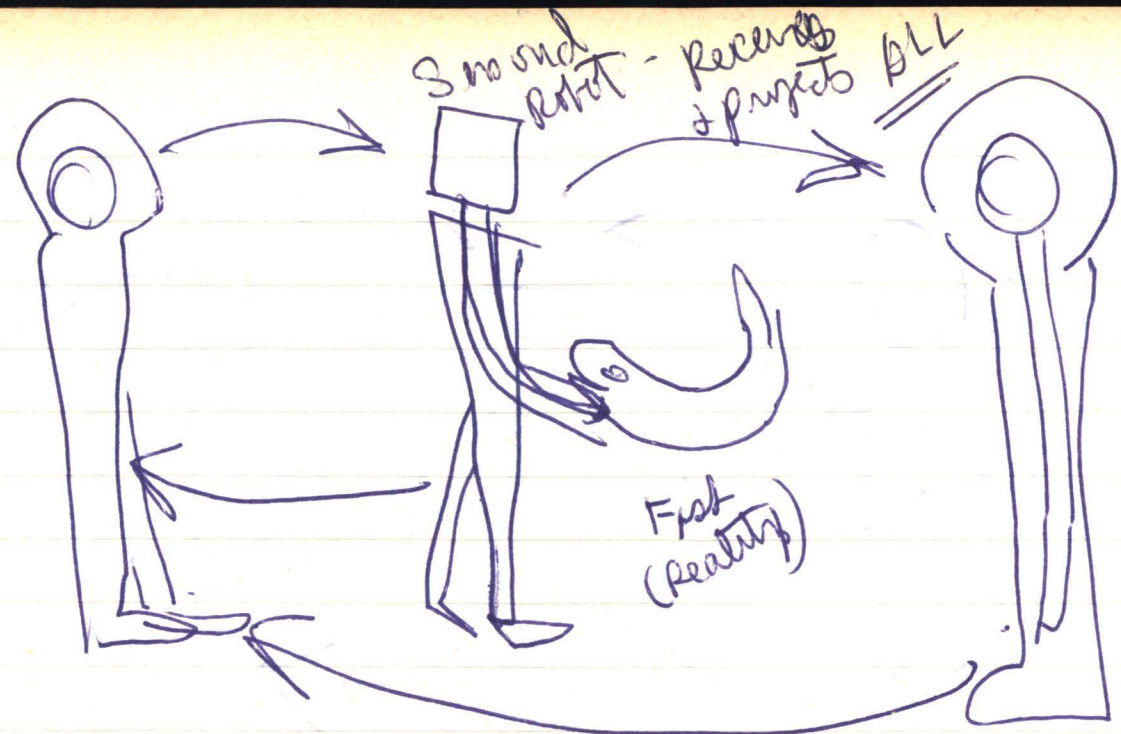
Direct dancing partner or lover relationship

Two way Broadcast Receiver  
Sensorama suits  
with creator Feedback.

Like Telephone - Each suit - receives & broadcasts

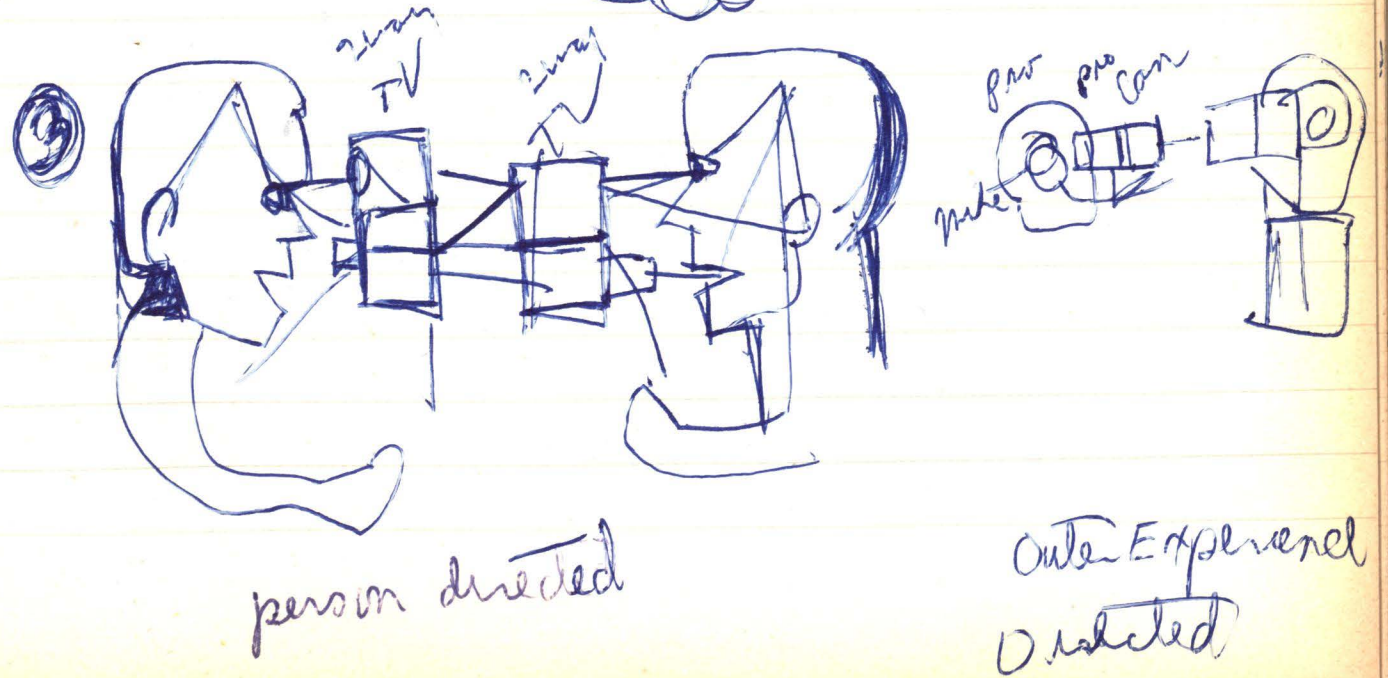
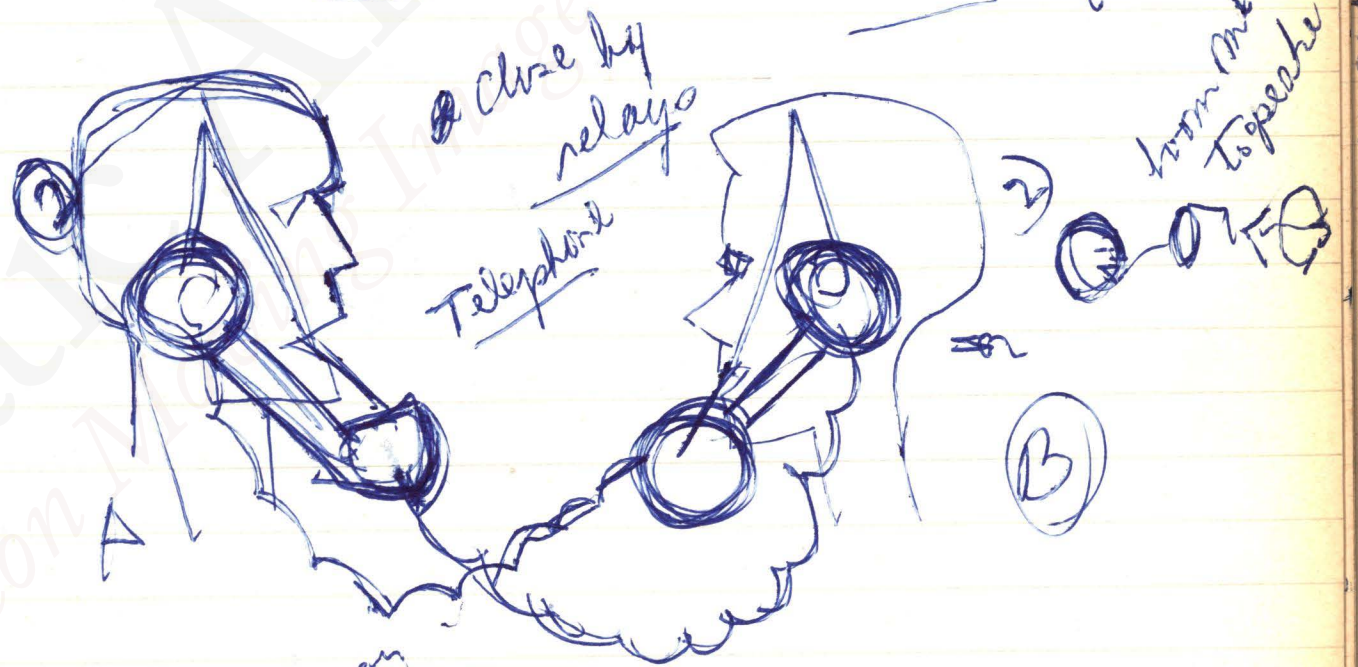
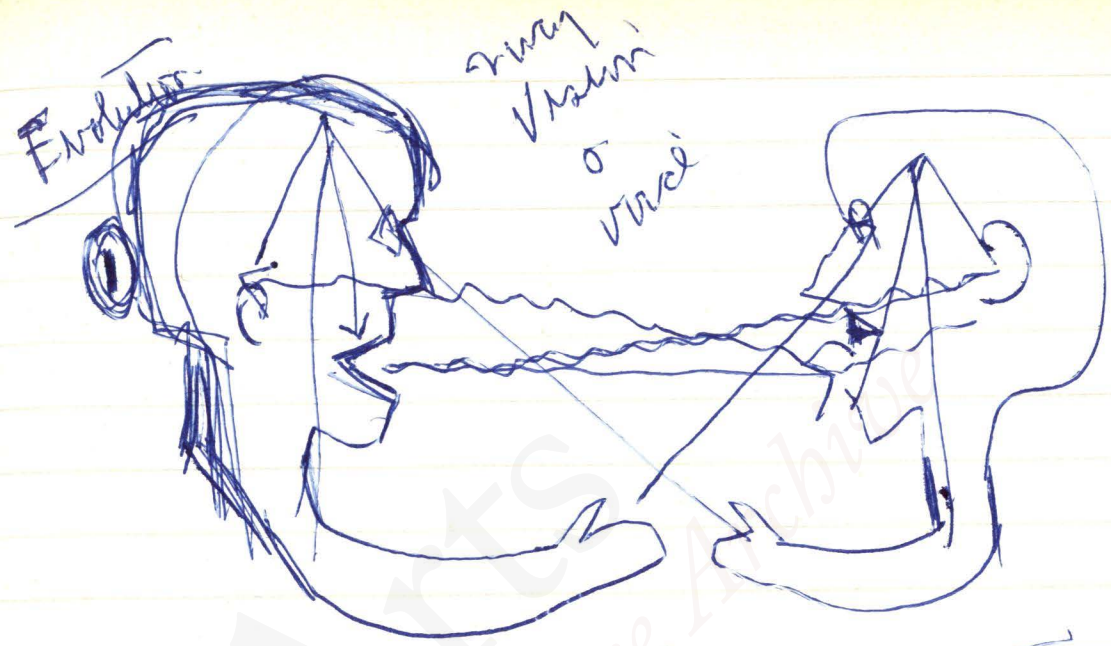
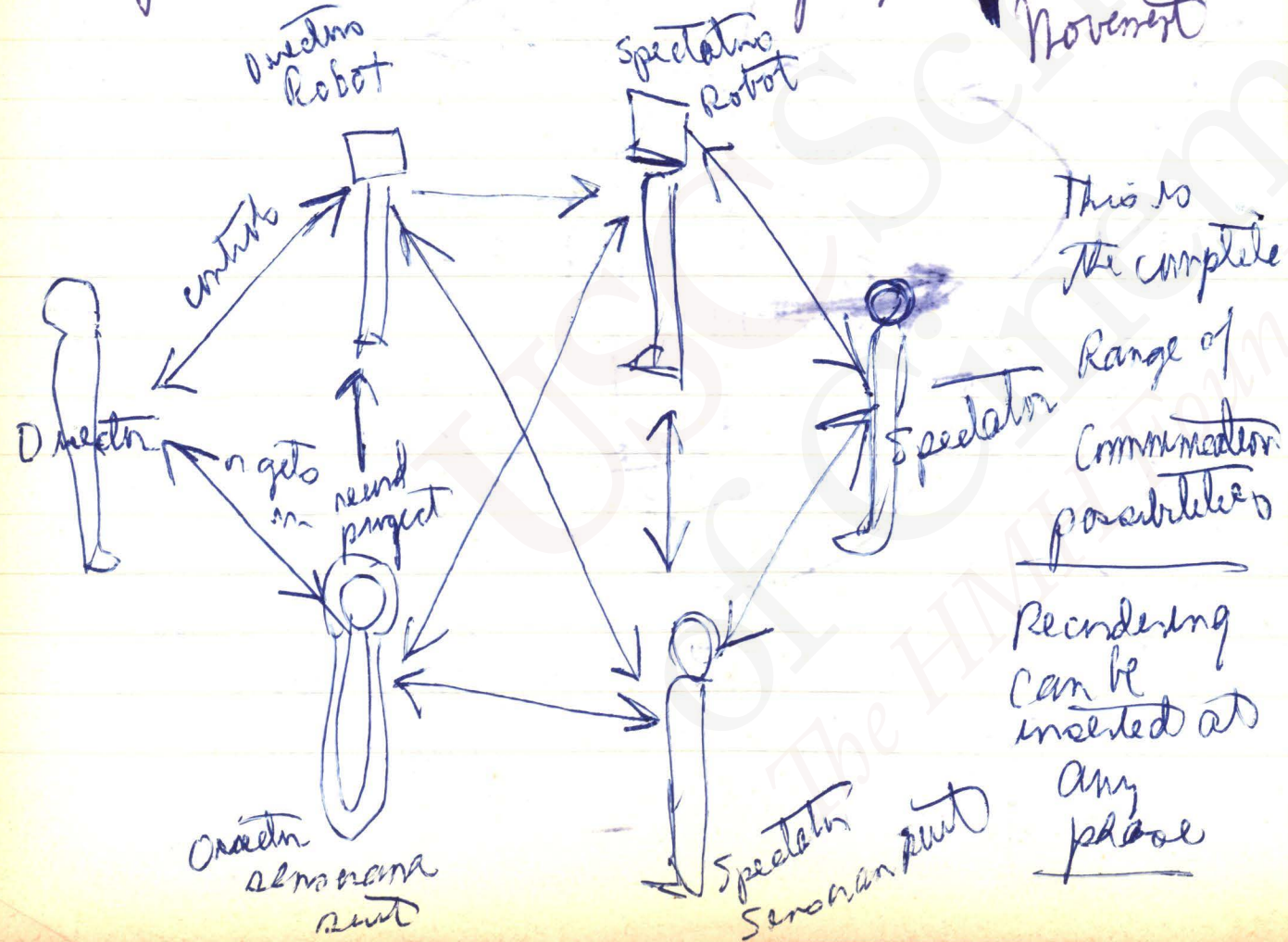


Proportional strength of Spectator Feedback ~~can~~ with Robot Feedback can be varied. - but usually would be 1 to 10

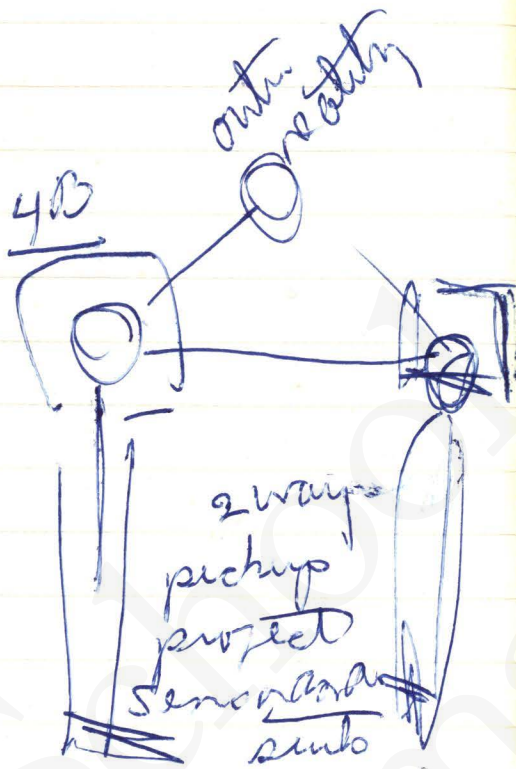
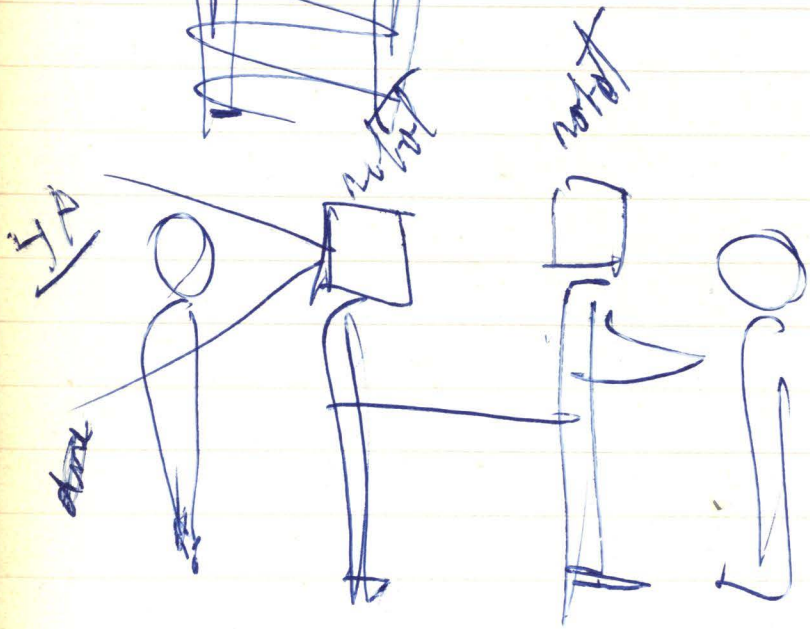
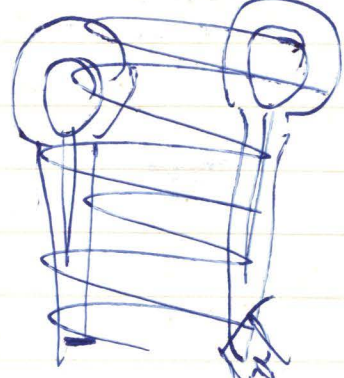


The Sensorama Suit receives what man can receive & projects what man can project

Images  
Sound  
Smell  
Temp  
Touch  
Taste  
Vibrat

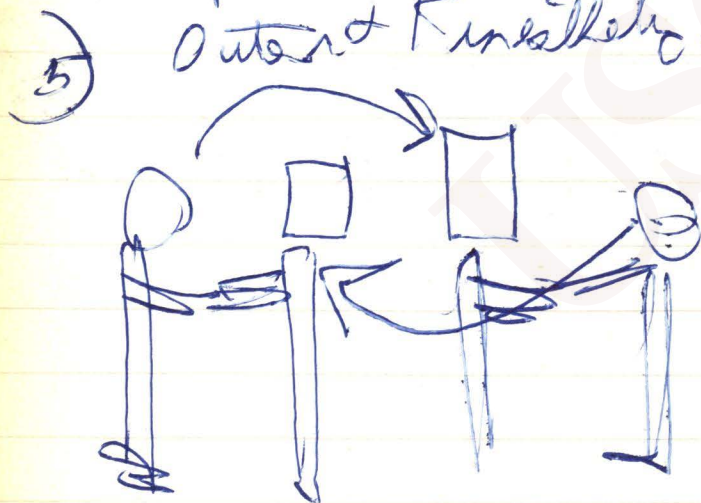


~~4~~ All outer sense



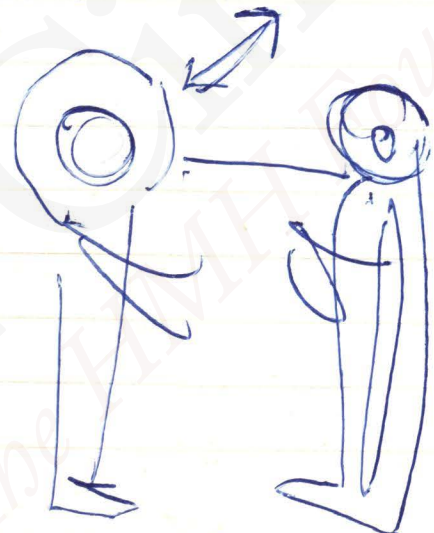
person directed

outer Kinesthetic sense



Robot takes body movement of Master

outer Experience directed



1 or 2 way complete suits

Therefore you must design & build

1) Sensorama - One Way <sup>(reception)</sup> ~~Reception~~ Suit

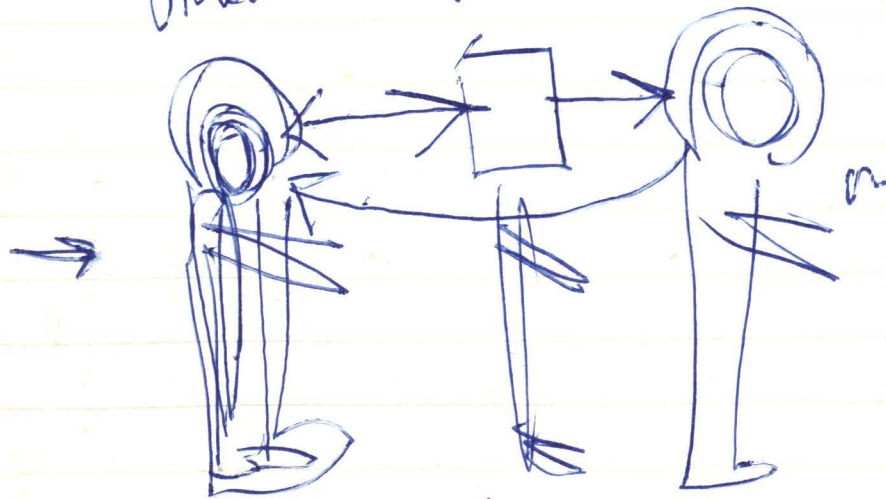
2) All Sense - Recording Robot <sup>(projection)</sup>

3) 2-Way - Recording & ~~Reception~~ Suit

4) 2 Way - Recording & Projection Robot (all sense & kinesthetic) in many varieties of feedback control

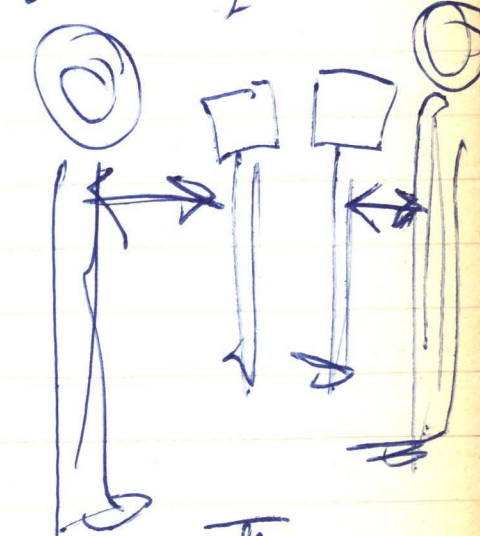
5) - The Recorder & Projecting <sup>body</sup> Positioner  
6) - on Robot Form.

Director Robot Spect.



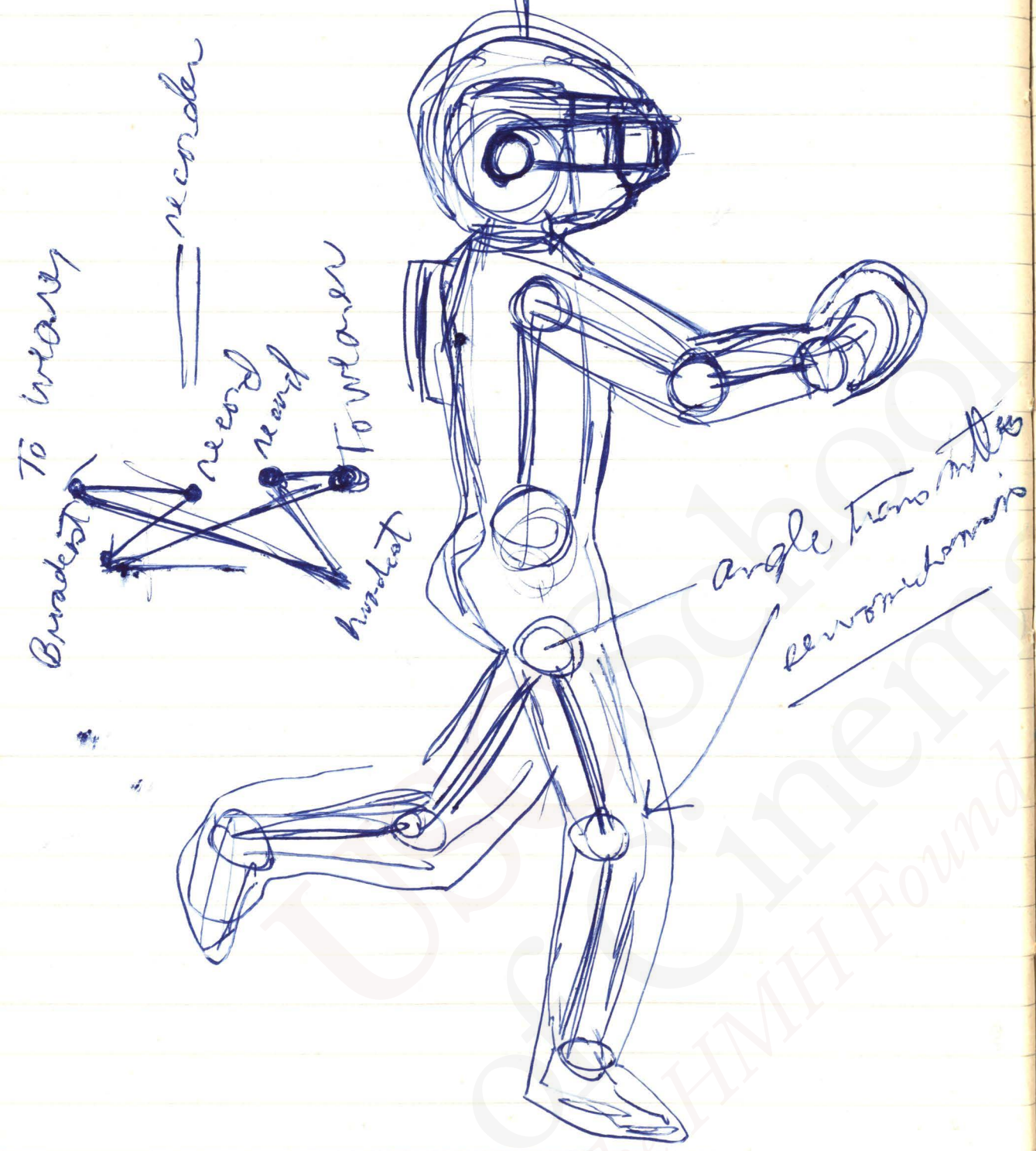
outer Experience Remote

on 2 robots Spect.



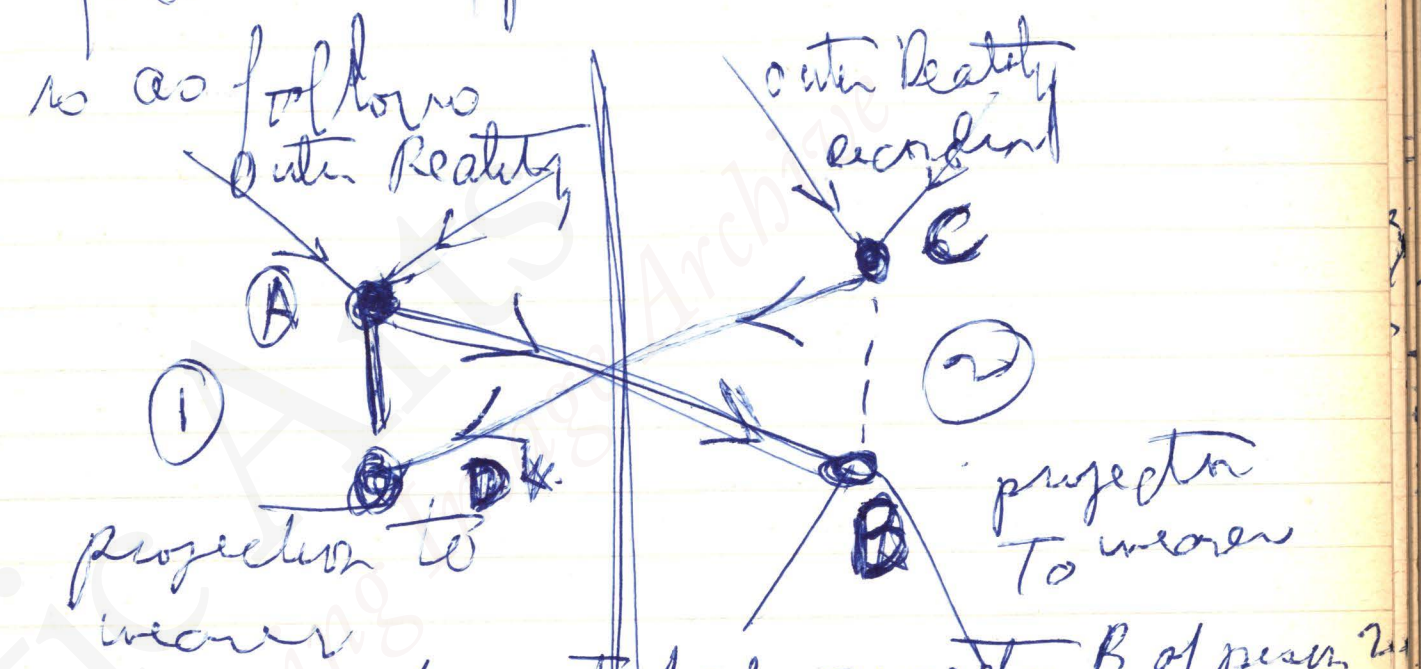
remote Experience Comm.

- ① Material - Super light Alloy
- ② Energy - atoms - powerful condensed
- ③ Direction - Miniaturized Electronics



The Mobile - 2 Way - all Sense Suit

The basic design scheme for <sup>2 way</sup> ~~all~~ communication of all sense experienced between 2 men

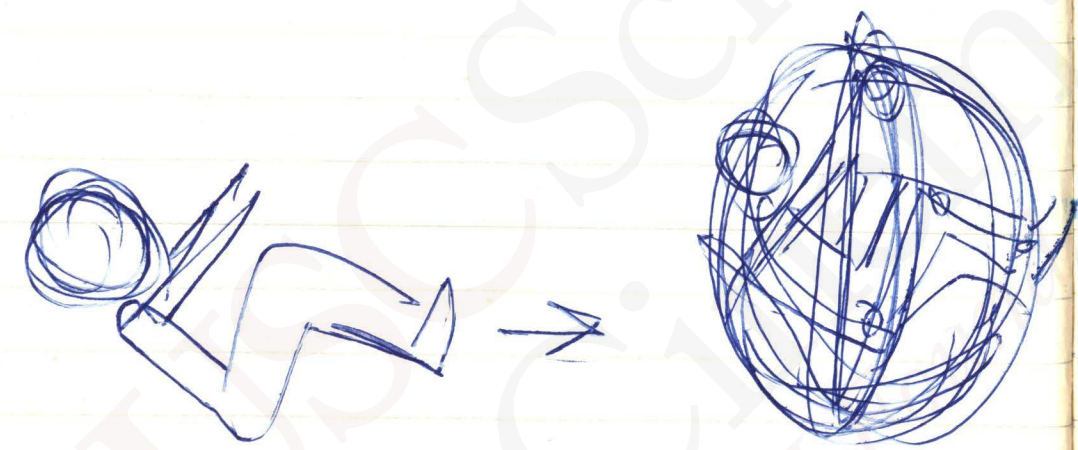


As follows  
 recorder A - of person A feeds projector B of person B  
 recorder C of person B feeds projector D of person A  
 each feel they are in each other's place!  
 i.e. Conversation or experience of each

persons meet & will have to take turns in switching on & off - directional flow of the information - Because if it is total ~~the~~ one

person cannot receive his own & another persons total experiences simultaneously. (partial yes but total no) as in airplane radio switch overs.

For orientation & purposes he  
 can alternate his own recordings  
 with ~~that~~ those of the person  
 with whom he is conversing →  
 sequentially in time - or  
 simultaneously - regulating the  
 proportion of Experience intensity  
 of self & conversant  
 at will. He might be  
 able to feel like 2 people at  
 once.



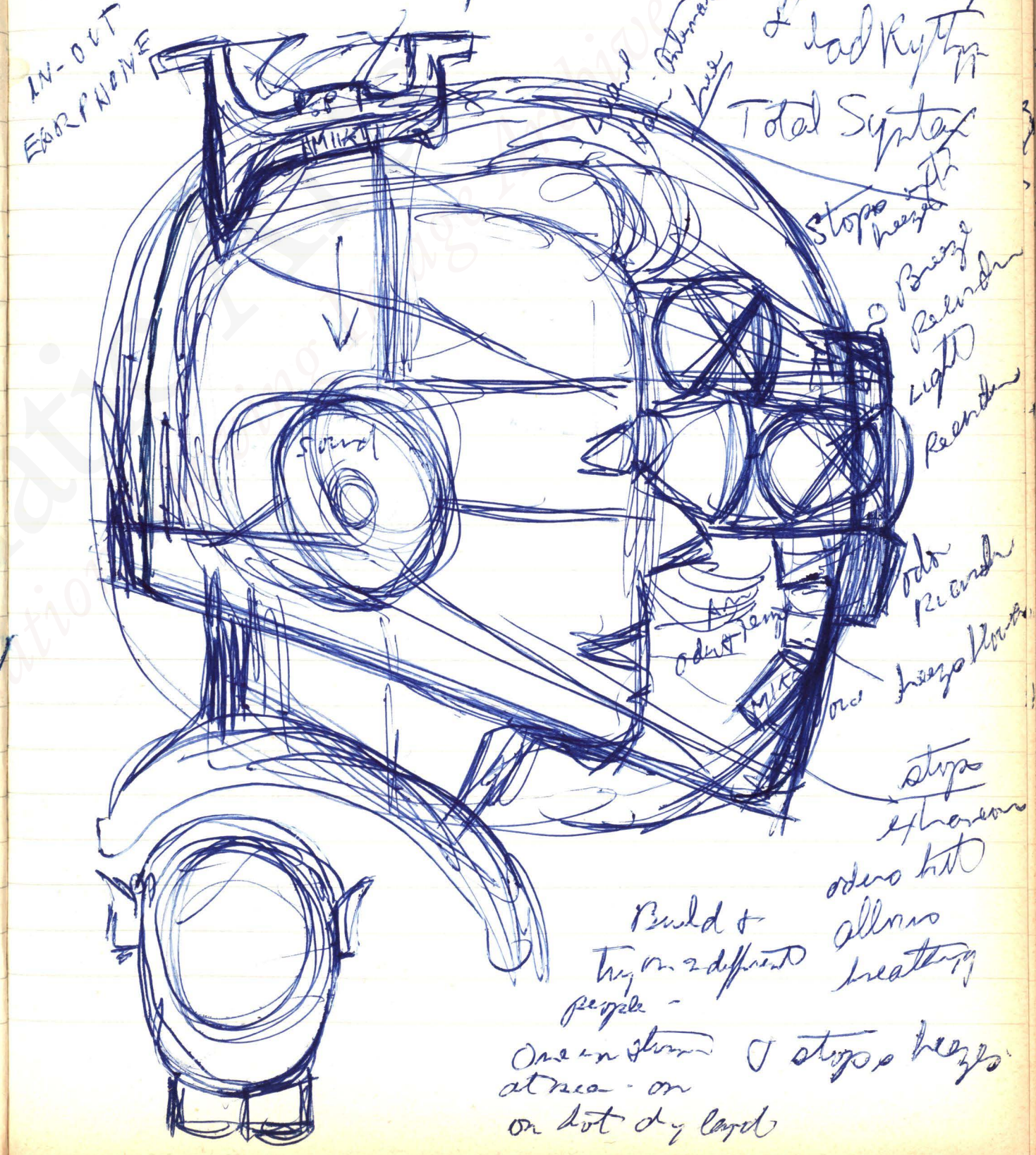
2 way cut in  
 plane

2 way  
 cut  
 in complete

The Alternate

positioner  
 in side vibrating  
 sperry extend

Investigate - Rhythm, Form, Composition  
 the basis of  
 the origins & reasons for good rhythm  
 & bad rhythm



Build &  
 try on 2 different  
 people -  
 One in storm  
 at sea - on  
 or hot dry land



First cheap experiment - crossed emphasis + notes  
of 2 people in different positions holding  
one common reality - such as passing of  
a train & talking to each other.

The complete 2 way system must  
be designed & built for it to be  
practical design. It's good for  
Experience recording - film making  
& 2 way conversation (old telephone)

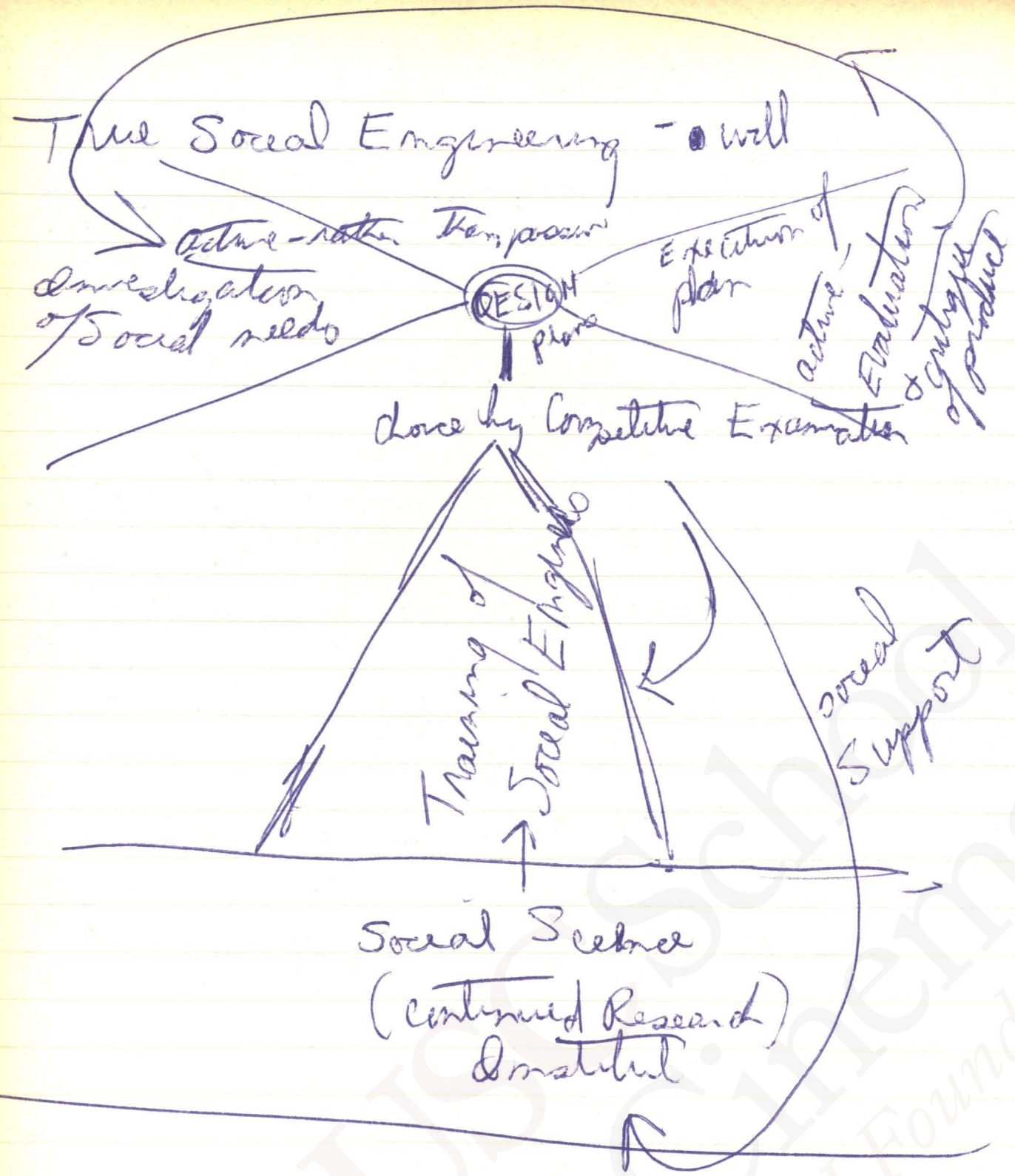
The main point of all this is  
not merely to convey the  
outer superficial experiences  
from one man to another -  
but to convey the ~~mind~~ the  
mind the feelings - the outlook  
the soul of an Einstein or  
a Da Vinci or a Lenin to every  
common man. - In a  
short quick intense efficient &

This requires a much thorough investigation of form & content  
record &

and then to ~~see~~ to harvest the  
thoughts & feelings of groups of  
thousands & eventually when the  
process is cheap enough - all  
fluently - to be digested - <sup>integrated</sup>  
- into the form of Humanities  
super-psychic & then convey this  
to each man. Wow!

i.e. The complete transfer of psyche  
- a scientific technological means  
for doing what the yogis do  
with their own bodies -

effective way



The Social Engineer should be educated until 30 years age - the last 10 years being  $\frac{1}{2}$  theory  $\frac{1}{2}$  (practice (work) & travel) Then at 30 to 40 he should be given pleb power 5 votes, (40-50) 4 votes

50-60 - 3 votes, 60-70 - 2 votes, 70-80 - 1 vote  
to ~~overcome~~ <sup>& counteract</sup> the rigidity of senescence.

~~The~~ One great way of characterizing the shift of our times is one from ~~the~~ private intelligence to Social Intelligence i.e. in the beginning the individual "goes to the doctor" when sick or "gets an education" -

but we are entering the time when Society periodically examines the individual - ~~it~~ <sup>it</sup> obliges him to get an education.

The result of is that many diseases are caught in the bud - and that many people who could never choose to learn of things they didn't know existed - enthusiastically take to knowledge once they are exposed to it.

Similarly, the govt must carry social engineering-problems, desires, needs to the people - not wait for them to "write a letter to their Congressman". Just as production engineering firms have learned it is in their own self interest to actively pursue <sup>well supported</sup> knowledge through scientific research - rather than wait for some scientist to bring them ~~the~~ <sup>documents</sup> ~~thing~~ - so the social engineers & producers ~~government~~ in their own self interest must maintain ~~for~~ a full time professional staff of social researchers who like the ~~business~~ researchers - are continually probing the people as to the nature of the fears, desires, needs & hopes - (Sort of a modern confessional - anonymous - yet revealing facts which exist & exert pressures whether they are recognized or not) therefore how much better to become aware of them and work towards their expression. Every loophole ~~in~~ in the system

should be provided for - as test as can - & provision made for continually rectifying new loopholes as they appear.  
Law - No man can be punished in any way - loss of job, position, property or money - for holding or expressing an opinion - any opinion.

- Every declaration should be anonymous. No name attached - the interviewer never seeing the interviewed & having no way of knowing who he is or where he lives (can have known part & anonymous part)
- Every person must be interviewed at least once a week or once a month - loosely & deeply (obligatory)
- No restriction of subject matter discussed. Interviewer must cover <sup>competent</sup> list of required themes.
- Results are statistically calibrated, digested & presented ~~written~~ - at end of each week or month to the Social Engineers.

Do not

- Should towards complete automation of process - so that entire national population - can make its views <sup>problems</sup> & desires directly felt to the Social Engineers <sup>Democratized</sup>

Electronic ~~Do not~~ Network -

Voting once a year - for a man you hardly know  
Lobby groups, "public opinion", letters to your senator are weak - are pale forms of expressing public opinion by comparison.

In the U.S. opinion flows up poorly and down hardly at all -

In Russia it flows down well but up hardly at all -

If at any time the public votes over 120% dissatisfied - the Social Engineering group - must be replaced by another group -

This system would ~~also~~ provide good feedback & avoid the perpetuation in power of Engineers whose designs are ~~too~~ distasteful to the people whom he is supposed to serve

ARTICLE

The road for America's salvation is not ~~to go to~~ undo Russia - but to outdo her. An economic, social and cultural competition carried out in the necessary ~~atmosphere~~ atmosphere of peace - which Russia herself demands ~~is~~ welcome -

We have the tremendous potential for outdoing her - because our economic base of 1958 is twice as large - Our democratic traditions of personal security twice as developed - Our sense of superb design - in clothing architecture - the arts - more advanced -

If the United States could be mature and flexible enough - to copy ~~from~~ Russia as <sup>social design</sup> freely - as Russia copies American automobile designs we could escape from the blindness of pure negativism we trading -

Russia can teach us about the organization of the foundations of our society - the Western world can teach Russia about the flowering of its surface - its sense of personal happiness.

Tally Sheet

West

Russia

Social Security  
Organization of  
Research, design &  
Production

Judicial System  
Design - Style  
Freedom

Analogy of Human Nervous system  
and Spinal Nervous System

The proper ~~and~~ healthy and  
ideal functioning of either  
system - leading to most efficient  
and effective use of capabilities  
requires that decisions that  
can be & should be handled on  
a low local level - should be  
without burdening higher echelons  
of ~~decision~~ command - and decisions  
that require larger ~~as~~  
perspective & greater mass of  
energy be handled by the  
higher centers.

In the U.S. we suffer from an  
unwillingness of the higher brain

to function - to assume & exercise its  
responsibilities and potentialities -

hence huge projects such as reaching Mars  
national geographical planning - weather  
control - Ocean Farming cannot be  
achieved.

In Russia today - they are ~~now~~ suffering  
from a reverse situation - (an extreme  
reaction from liberalism) whereby ~~the~~ all  
small local decisions ~~are~~ are not  
being made - for fear of assuming  
any responsibility & being forwarded to  
Moscow. This condition is similar  
to ~~the~~ the human brain being  
clogged with innumerable tiny decisions  
such as walking or blinking the  
eyes.

Both are ~~extreme~~ - terribly inefficient  
a criteria for ~~social~~ establishing the  
correct level of decision making must  
be established - that should in  
essence - whatever way yields the  
desired results fastest.

## Sia Farming -

Since in essence - Farming is a method for capturing solar energy & transforming it into an edible food or useable substance - and the surface of the earth itself is used as a giant flat plane exposed to the sun

since most of the earth's land is already cultivated - and land is fast needed as sites for cities & factories rather than farms -

and since 4/5 of the earth's surface is ocean - why don't we advance to a true stage of ocean farming

4/5 of the solar energy hitting the earth is ~~being~~ not being harvested by man

With regard to getting food from the ocean man is still in a relatively primitive ~~beginning~~ ~~stage~~ capricious inefficient ~~in~~ harvesting stage

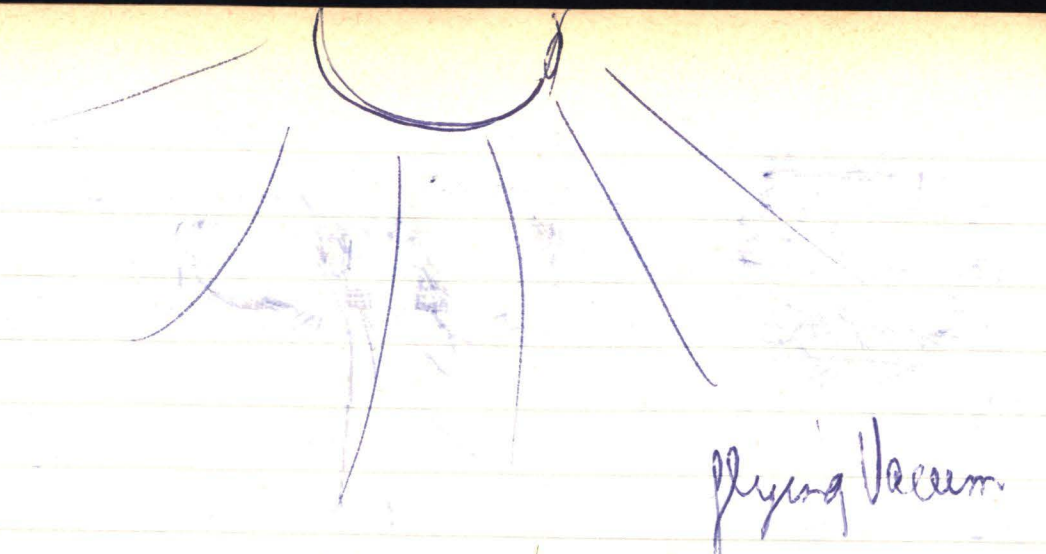
Also I believe in the long run it will be easier to bring the appropriate minerals to the ocean than water to the land

For all these reasons I believe I believe biologists should either find or breed several plants which have the following characteristics:

1. Float freely on top of water
2. Can grow in salt water
3. Water & atmospheric temperatures
4. That doesn't bind together
5. The fruit of which is easily separated from the plant
6. That is edible to man but not to all fish.

All the farming will be done by giant cargo airplanes - (convertible) operating off a <sup>special</sup> cargo ship - specially equipped to cut through the sea of food - (all ships would be in the future -

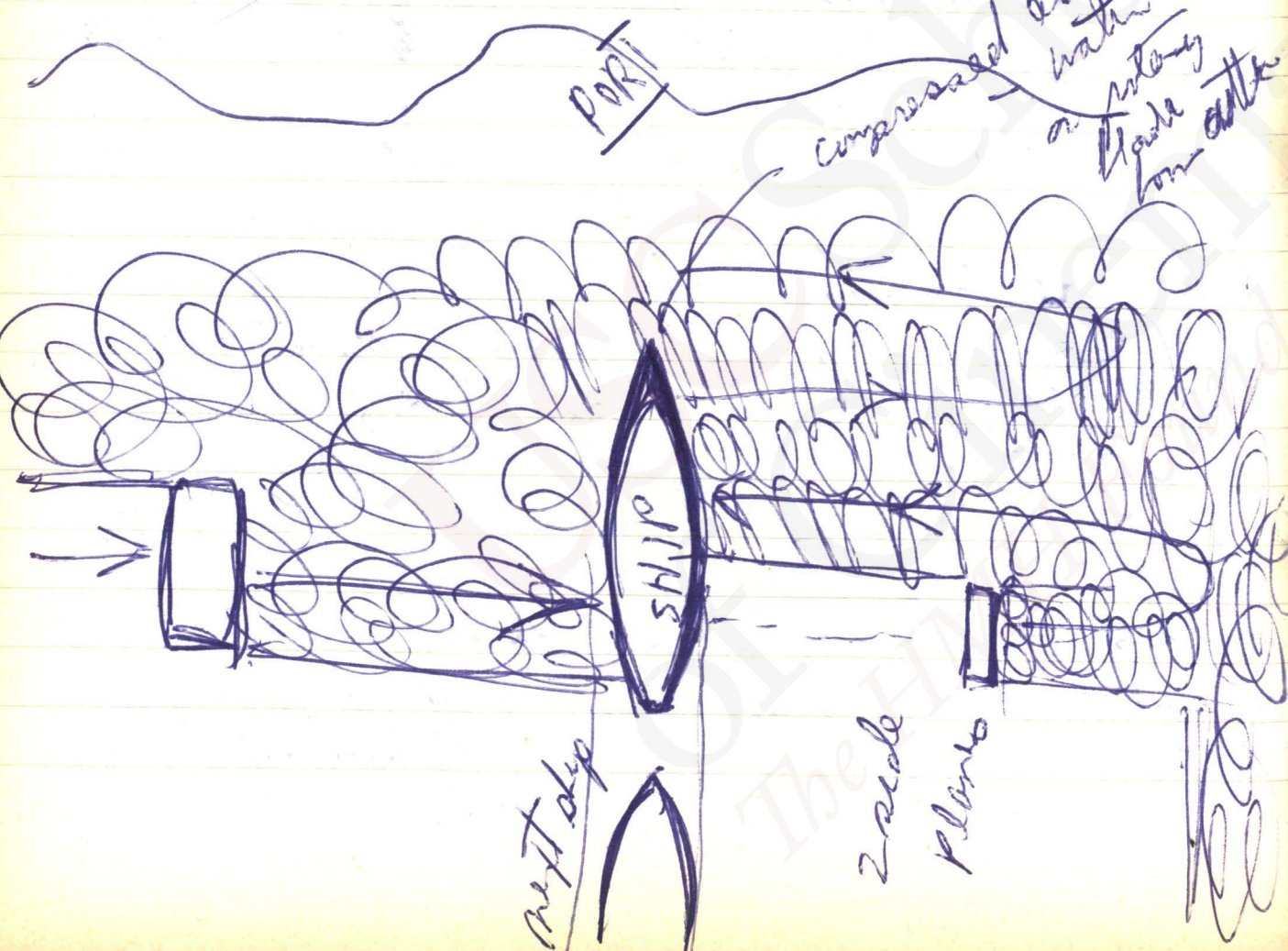
This abundant food supply would tremendously increase the amount of fish <sup>annual</sup> a much healthier food than meat & eventually leave the land free for better things.



flying vacuum



cargo ship

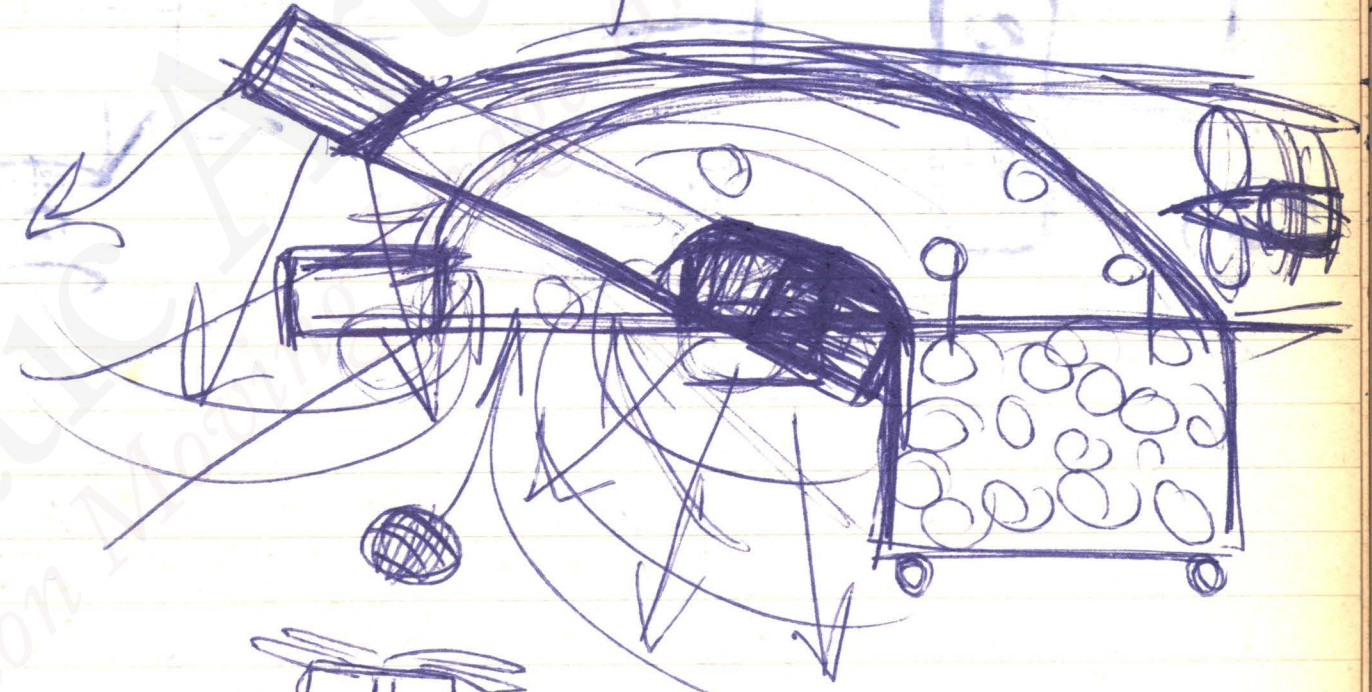
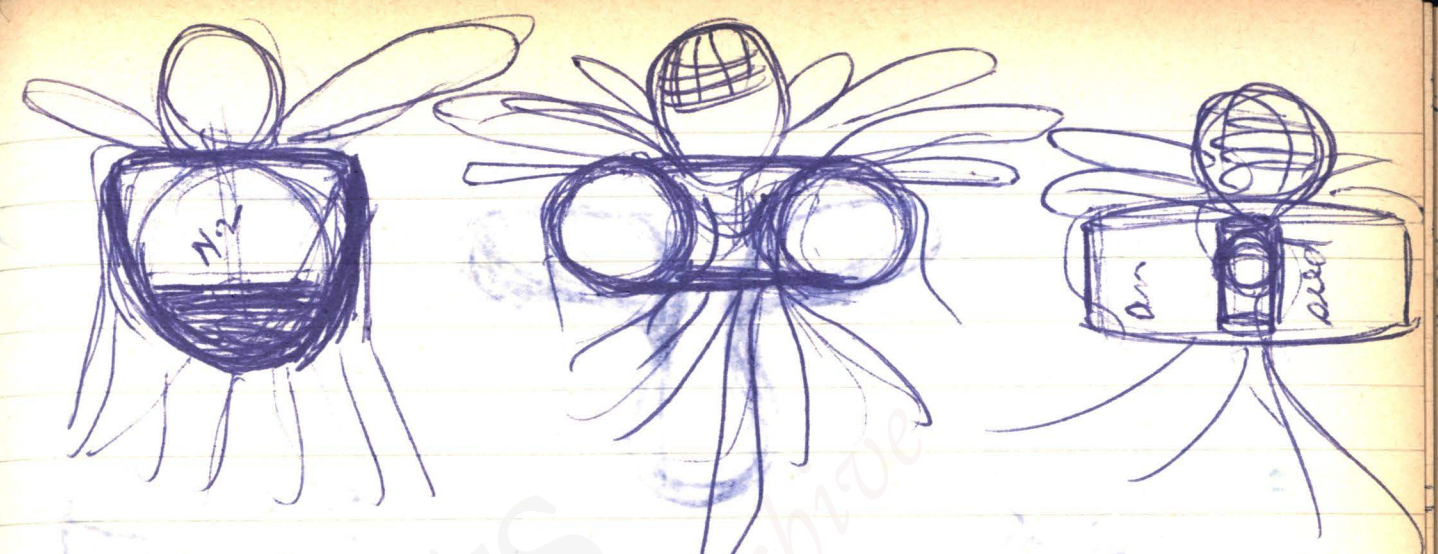


port

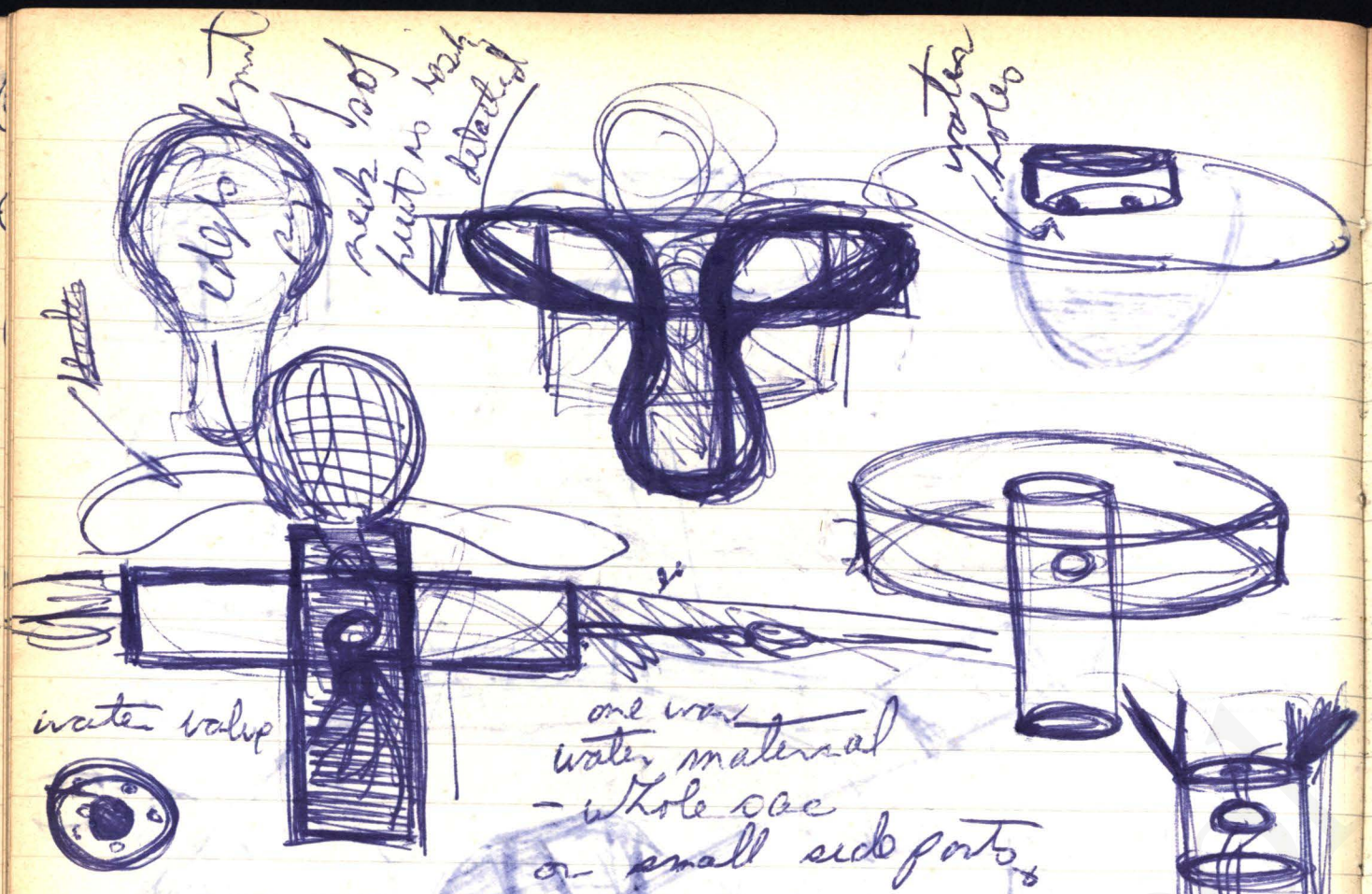
compressed air  
water  
or other  
fluid  
low cost

raft ship

sea  
plants



an suction pulls part  
up - But negative electric  
magnetic field around  
opening pushes metal  
away back - for next years  
harvest -  
The part detaches & <sup>is</sup> ~~is~~  
is sucked into hr

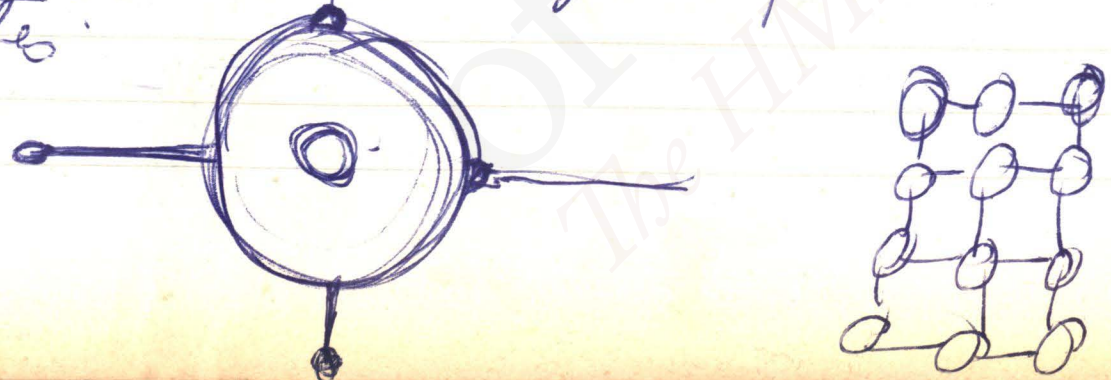


one way water material - whole oae or small side ports

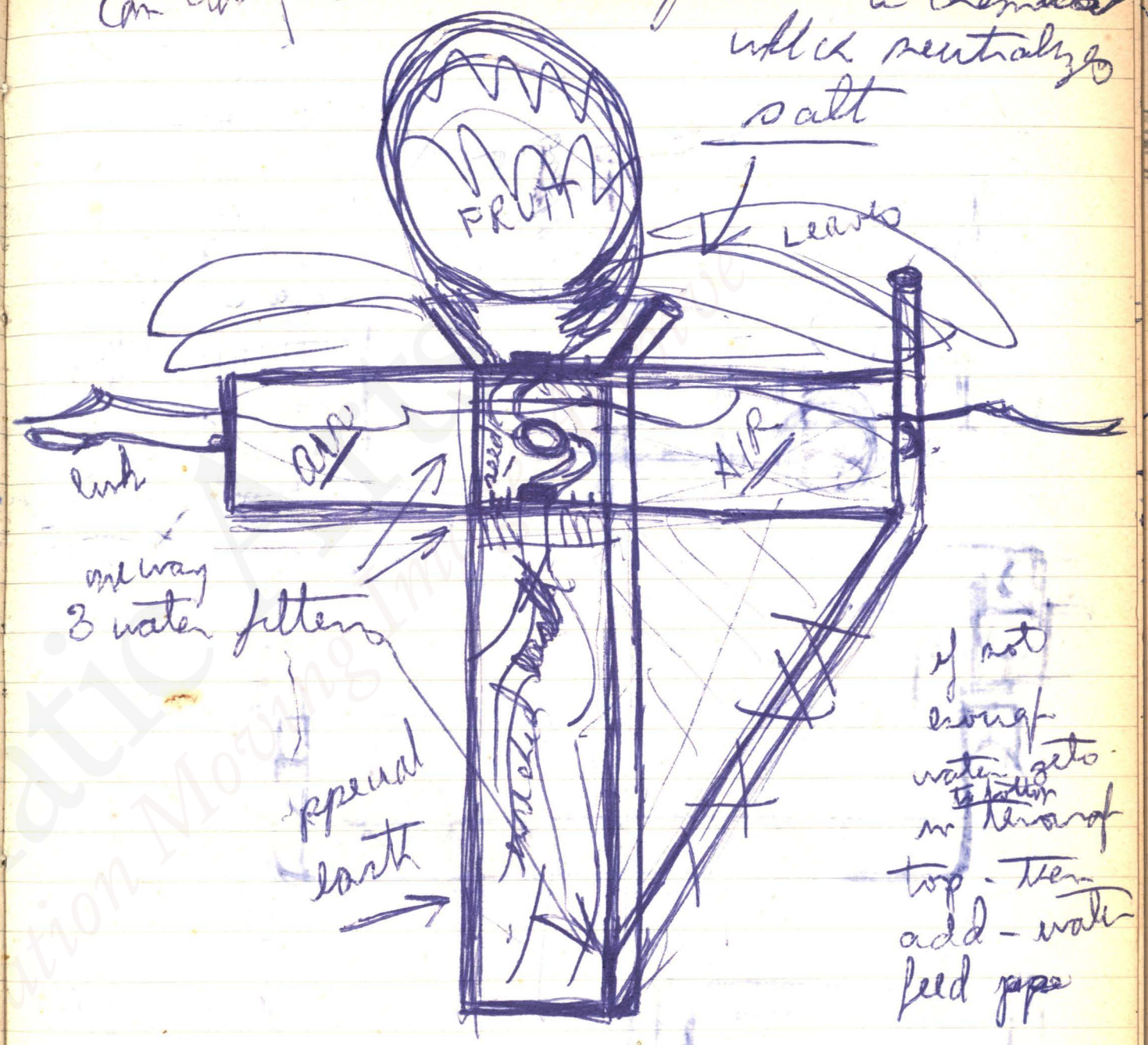
if enough water doesn't splash in through hole in top - then must find way for water & spray to get in without earth getting out -

inert  
Made of - metal - plastic or glass best  
imbreakable

Each has 2 hook & 2 loop (cheaper against each other in storm -  
so they can be hooked together to make lake floating patches

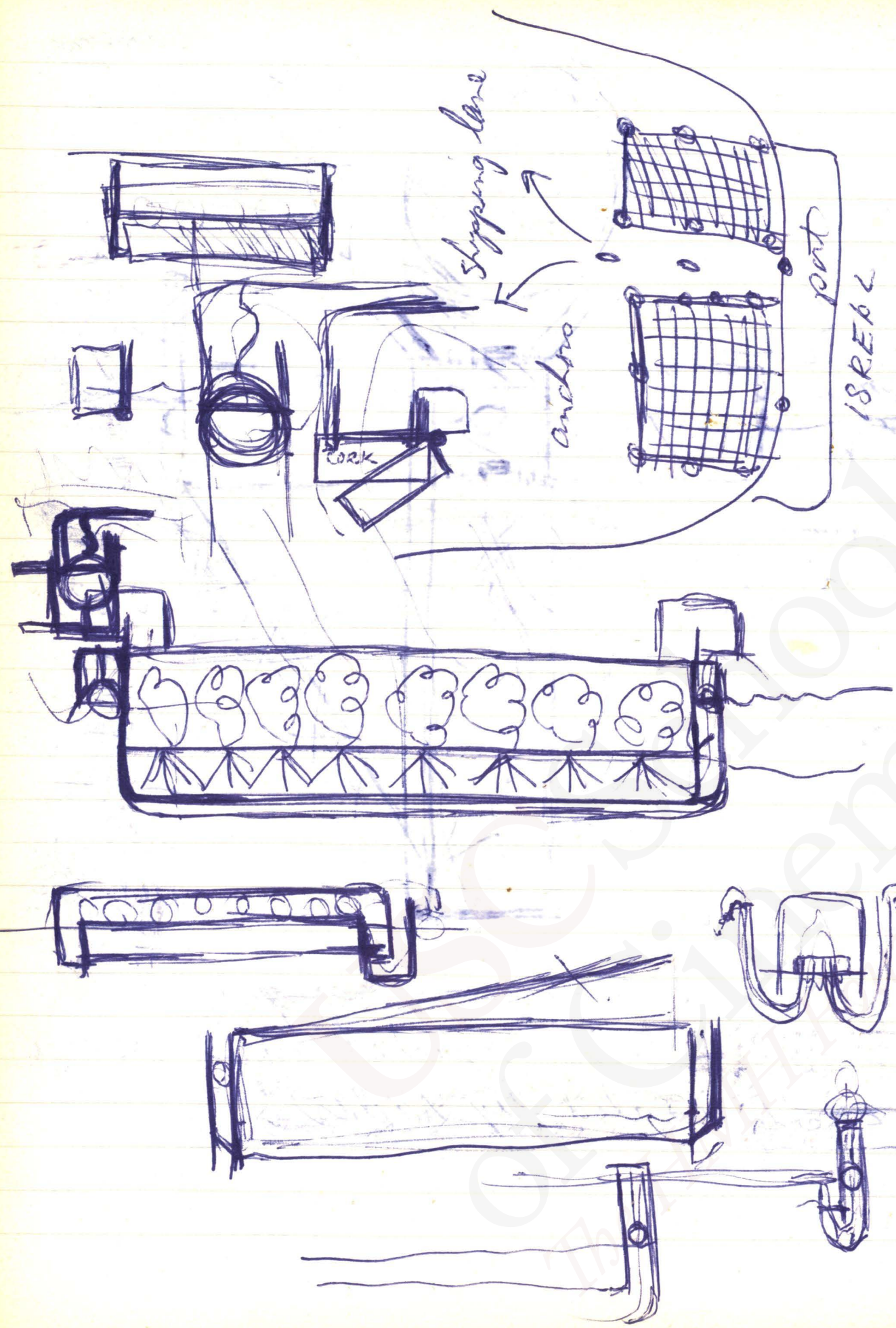


can carry its own salt filter - a chemical which neutralizes salt



Flotating Fields -  
Easily planted, picked by plane -  
Easily located by radar.  
or anchored & declared - with light shell buoy -



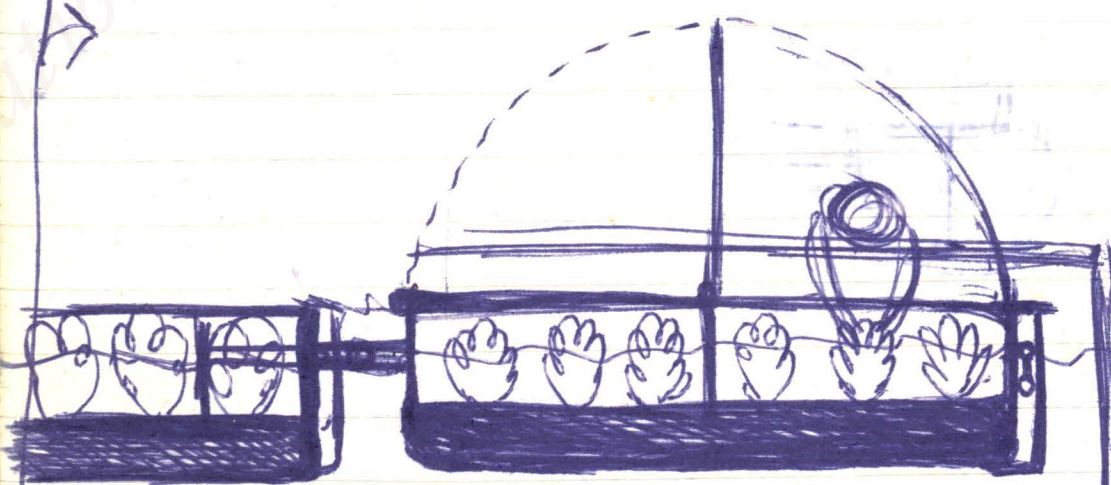


A-floating Sea Trawler.

AIR WATER VALVE

if water wants to splash up & in or fills up too much beneath the safety plug both prevents air H<sub>2</sub>O getting in or out.

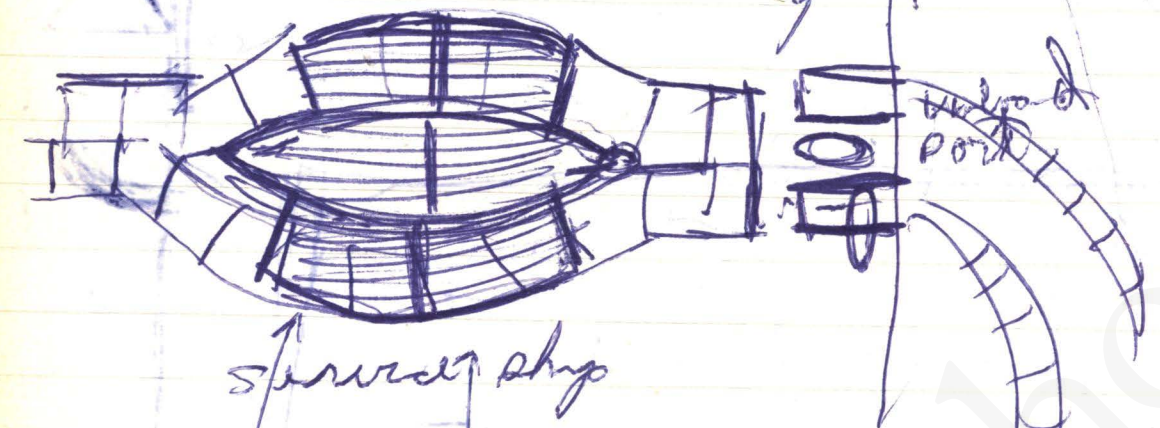
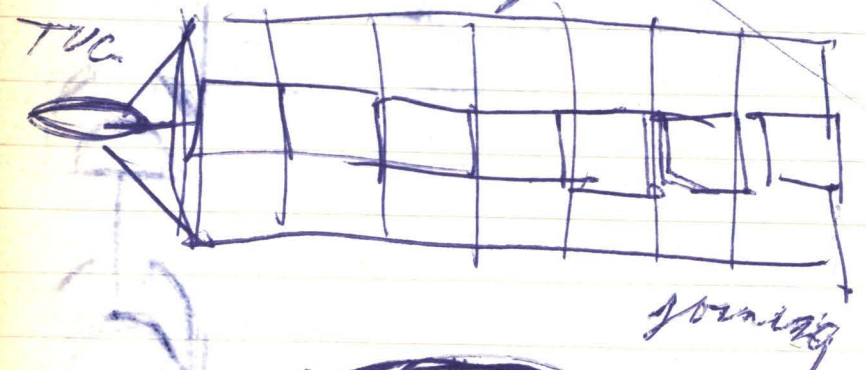
better get long haul are towed past  
automatic <sup>harvest</sup> - repl station



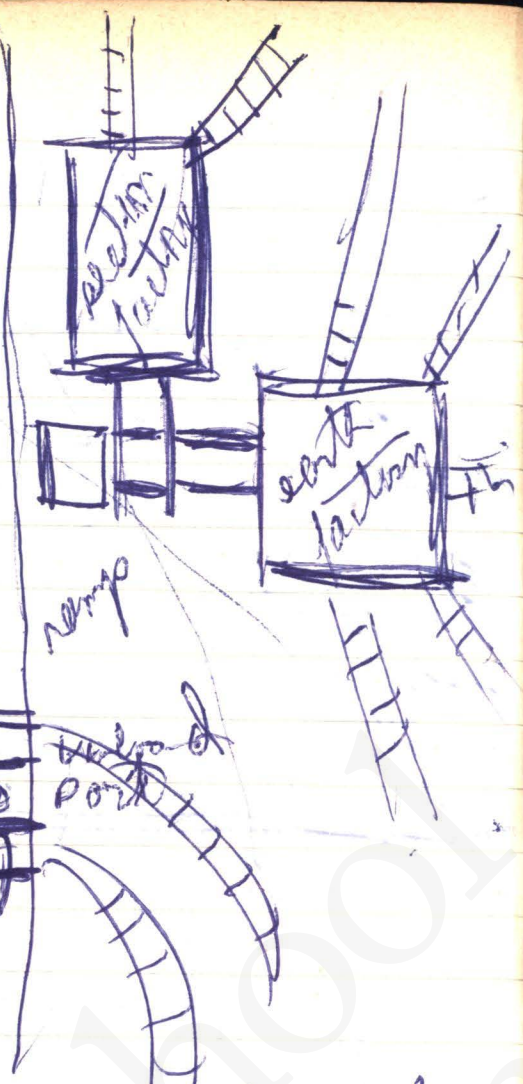
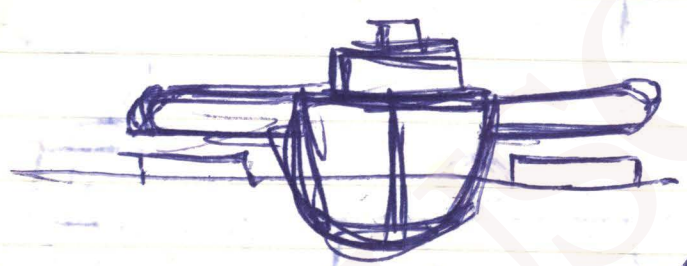
Special boats with hoppers & conveyor belts replent - seed & harvest. or



Ocean  
Earth Plant towed out  
to place & anchored &  
tugged



right section  
harvest section



1000 - 10'x10' per day  
sections one  
made of sea  
resistant plastics  
(Top is transparent)

Earth factory takes raw  
minerals from water, crushes  
them into prepared earth  
& plants seedling

1000 10x10 per day or 100,000 sq ft.  
or 1 10000  
365  
3,6500,000

make 20' x 20' each unit & make 2,000/day  
400 sq ft x 2000 = 800,000 sq ft per day

$\frac{800,000 \times 365}{1000} = 292,000,000$  sq ft per year

or approx 12 sq miles or approx a area  $3\frac{1}{2}$  miles  
or an area 1 mile wide by  $3\frac{1}{2}$  miles  
& 12 miles long

or in 10 years production 120 square miles  
or a piece of land 6 miles wide & 20 miles long  
which could raise enough fruits & vegetables  
to feed ? people for one year

one more need, 2 sq ft per day - 292,000,000  
one man needs 670 sq ft per year  
670  $\frac{292,000,000}{670} = 435,000$  in 10 years

in 10 years type can feed  
4,350,000 - and it never  
stops growing

1/2 mile sq per year  
25,000,000  
it ~~is~~ increases by 4 1/2 million in 10 years

## Advantages -

1. Guaranteed Water Supply - on Sea
2. Guaranteed Sun & Climate - because covered by glass
3. Takes up unused & unusable space
4. Expansion <sup>area</sup> is endless
5. Easy Harvesting & sowing & transporting of product - it is already in a boat so soon as harvested (no rail or road costs)
6. Can utilize pure minerals of one mountain & the minerals of the sea -
7. Wastes can feed fish & greatly increase fish content of water
8. Garden can be moved & towed wherever desired - i.e. for canning can be brought in garden to canning.
9. It combines agriculture with industry

Disadvantages = cost of manufacture

- 1) Problem of Salinity
- 2) Wrecking in storms

Advantages - 1) Cost of production can be greatly reduced by very simple design cheap but good material & completely automated production

- 2) Salinity can be solved by
  - a) selection of existing plants
  - b) breeding
  - c) chemical & other filters on floats

- 3) Wrecking can be solved by
  - a) strong mooring & strong flexible ties
  - b) elastic materials
  - c) placing in storm free areas

A very important idea worth investigating & pursuing - especially for overcrowded water bound islands <sup>countries or</sup> such as Japan, Brazil etc

→ <sup>the</sup> producing farm land itself by automation.

The two most basic concepts of ~~any~~ any philosophy - or of my philosophy - must be Design and Energy - In the the design or organization of energy is the story of ~~the~~ ~~world~~ nature and particularly the story of civilization.

In electronics we are learning how to design <sup>organize</sup> the surface energy of atoms

With the tapping of nuclear energy & a ~~correct~~ possibly mathematical formulation of Design (organization or pattern) mankind is on the verge of a tremendous ~~step forward~~ step up to the entire level of his civilization -

~~an efficiency~~ (i.e. the Electronic Design of Nuclear Energy) a tremendous increase in the abundance of raw energy - & an equally tremendous increase in the efficiency of its utilization

The dualism formerly occupied by ~~the~~ matter and energy - is now being replaced by the dualism of energy (which is the common root of matter & energy) and design

These will coexist until a third common root is found

but there is no design without energy - and above all NO ENERGY WITHOUT DESIGN <sup>design - magnifies or concentrates lower energy into higher, greater energy</sup>

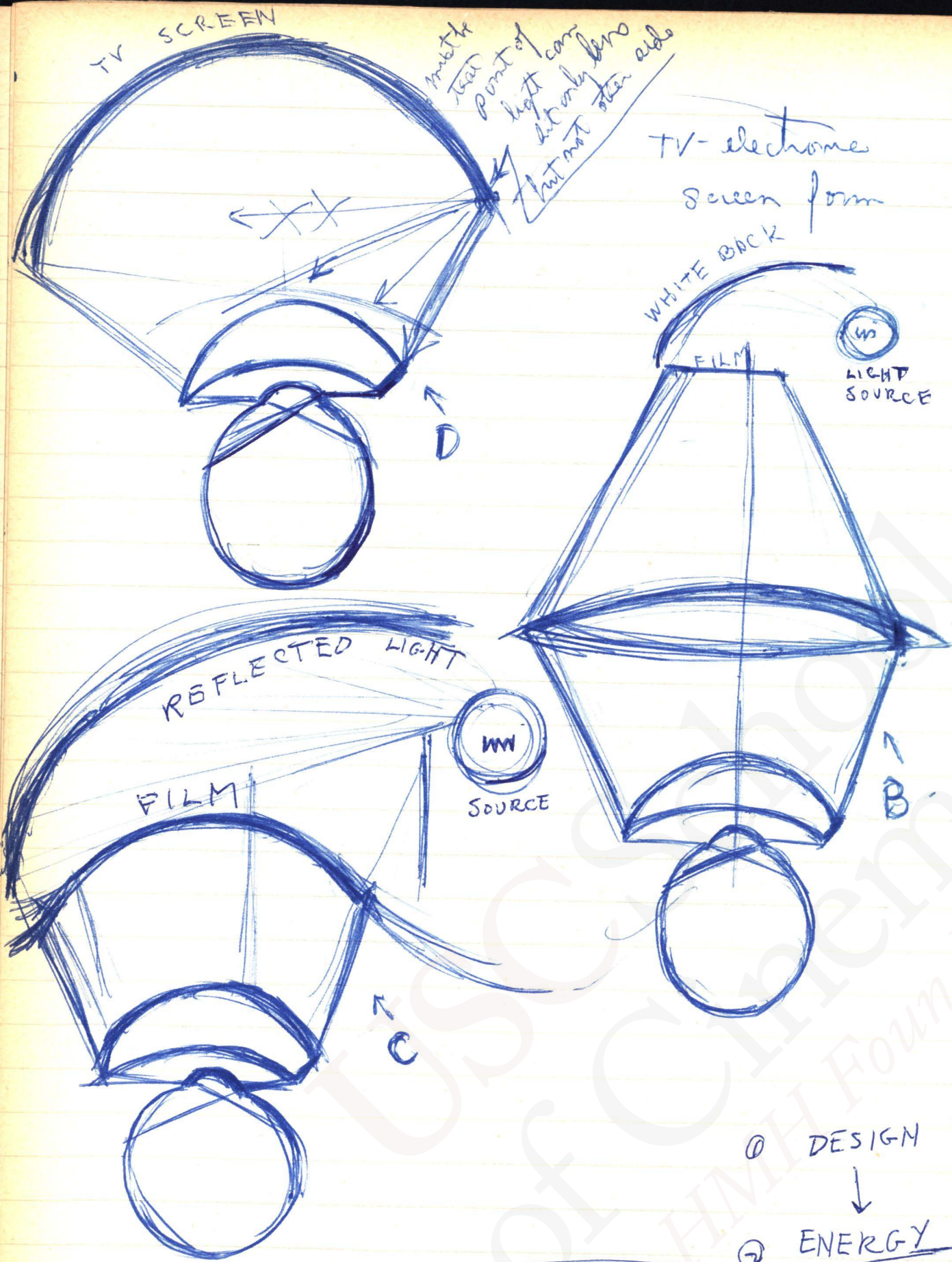
Working according to these values - we may be able to build a pure energy detector that can directly record ~~energy~~ the common root of energy forms & not their separate forms such as light, sound etc.

That could portray in pure form of all energy configuration - present & past

In any case some one must formulate laws of design - pattern, just as they were formulated for electricity by Ohm, etc. so men will have a ~~solid~~ standard of measure ~~with~~ ~~as~~ a criteria by which they can measure of the efficiency of any design - whether it be an electrical circuit, a building, a government, or a ~~macro~~ ~~micro~~ <sup>macro management</sup> or a painting.


Only then will we have the possibility of beginning to seriously engineer a smoothly running society

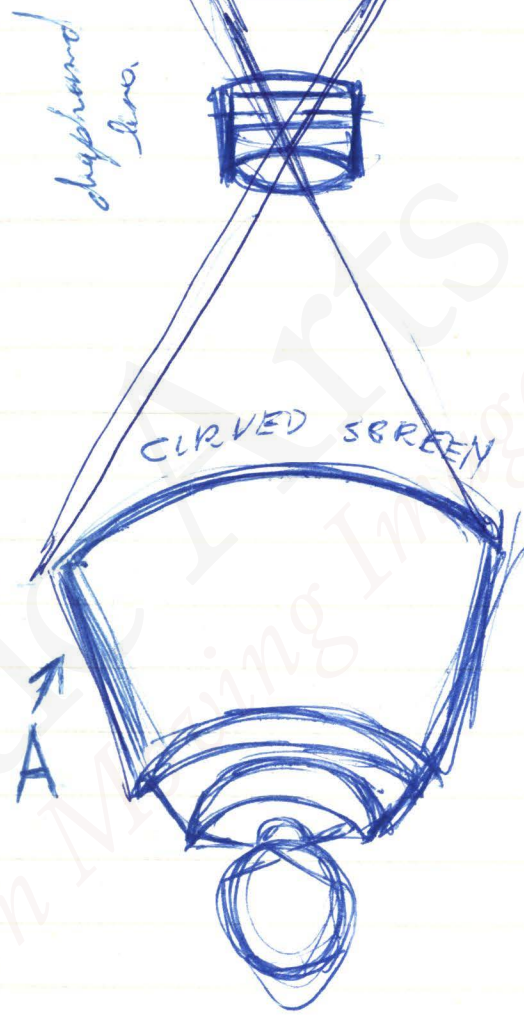
Laws of Design - a Criteria of Good Design read in aesthetics - & Engineering - Think & Write



Energy is the concretization of Design

- ① DESIGN
- ↓
- ② ENERGY
- ↓
- ③ MATTER-  
appearance

STEPS  improving through time & developments



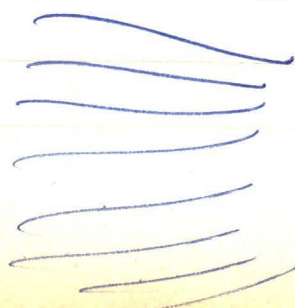
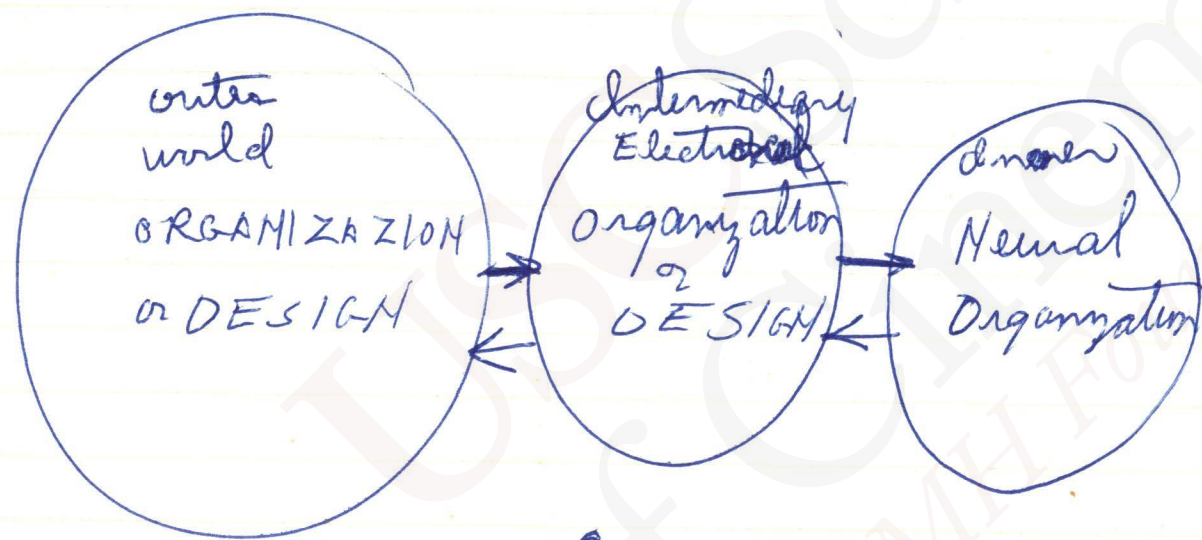
The achievement of complete realization of ~~the~~ technical form will make possible for the first time complete freedom in Aesthetic Form - allowing free use of so called abstract expression - ~~which will be~~ ~~is~~ will be the true meeting place of Art & Science. (abstraction is

only way of directly expressing the ideas  
the wisdom of science.

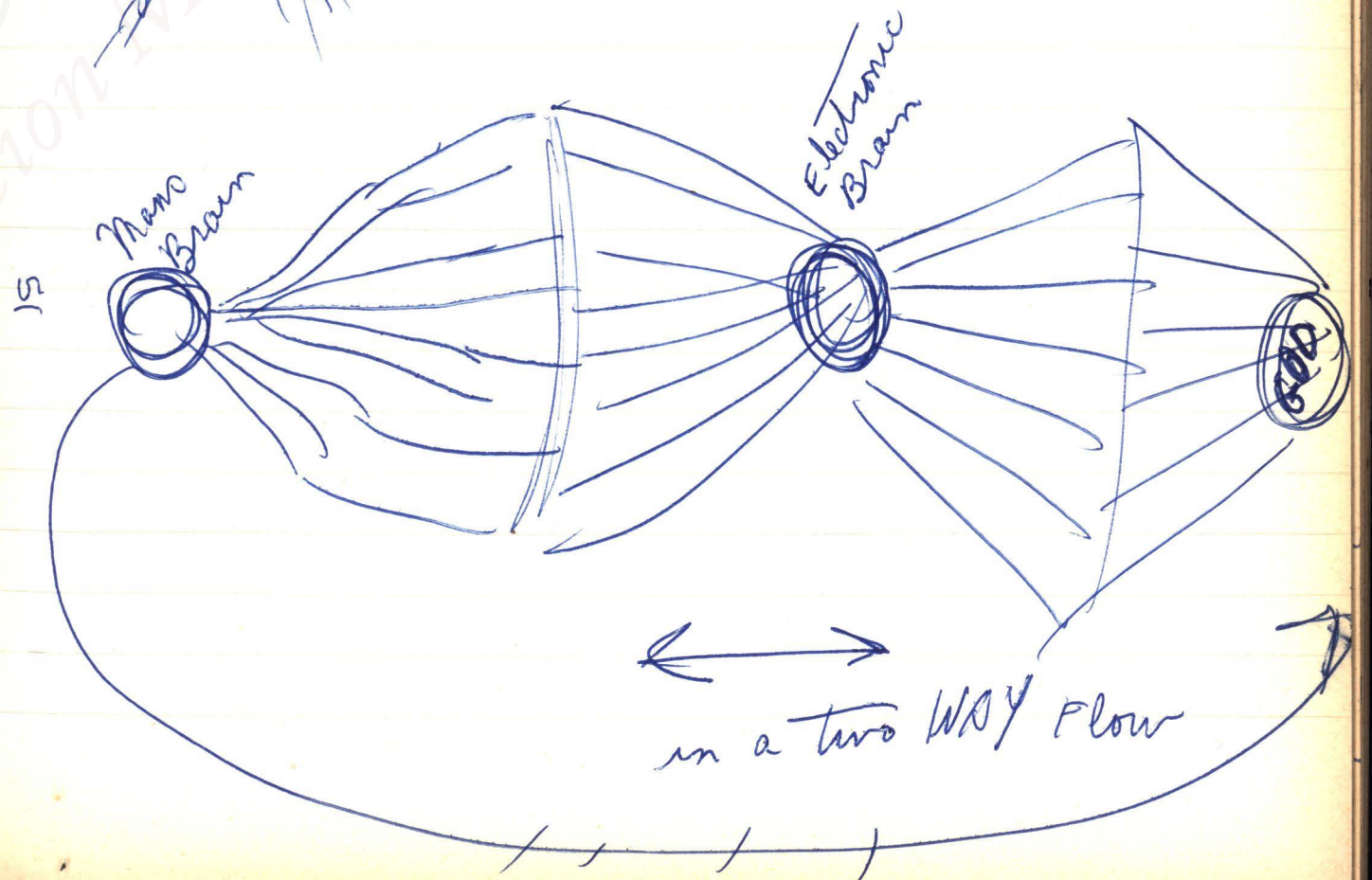
- Then - a) Realistic Technical Form (Electronic technical studies)  
 b) Completely Free <sup>abstract</sup> Aesthetic Form (Psych design & art studies) (Realistic portrait of the human psych perception of reality)  
 c) and Scientific Content - (Science + Philosophy studies)

are the 1, 2, 3 steps of your life work  
in art

What we are really heading for is a  
connection of the outer world to the  
inner world through electronics -



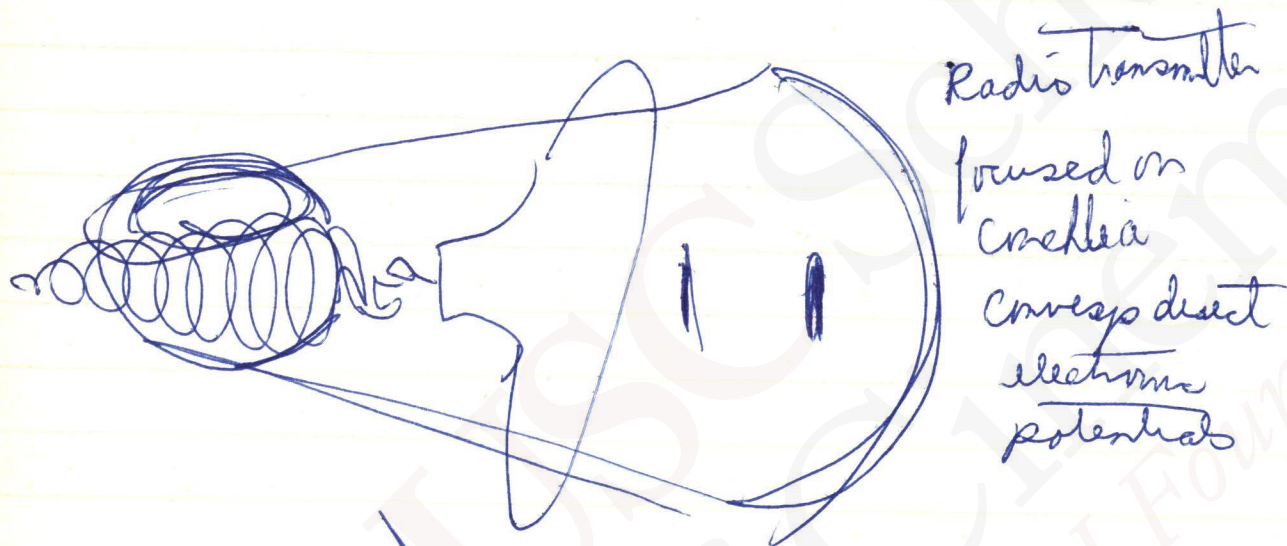
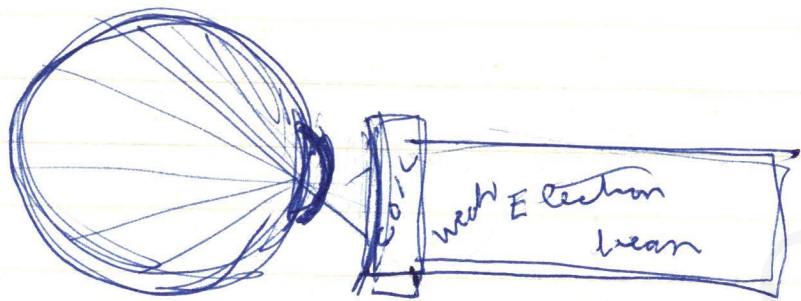
If electronic voltage can be picked up  
when the brain commands a muscle to  
contract - the reverse should also be  
true - that is a voltage to the  
kinesthetic sensory nerve should inform  
the brain the muscle has contracted  
even though it hasn't -



Following this line of thinking - maybe it ~~is~~ is possible to by pass the intermediary stage & stimulate sensory nerves directly

Then eventually <sup>we</sup> by pass these & go directly to <sup>the</sup> brain - & emotional centers

- Electron beam - points directly on retina



direct electronic transmission of odors to sense & taste nerve ends & tactile nerve ends

If we can understand the electrical nature of the nerve system - & then at critical points focus weak (radio) voltages we can by pass clumsy <sup>mechanical</sup> conversion apparatus & physical fatigue.

You must study Neurology & Electronics

Investigate all body electronic apparatus -  
 Like detectors, encephalograms etc (radio pilot)  
 & try to work them in reverse  
 - in particular try focusing weak signals in completely noise free environment to

see if any sensations or visions are stimulated.

Frog thinks +  
 Frog leg moves - we get voltage

We apply voltage - Frog leg moves & sensation is created in brain

If we apply further up only sensation should be created in brain.  
 If we apply directly with electrodes <sup>to brain</sup> - sensation in brain

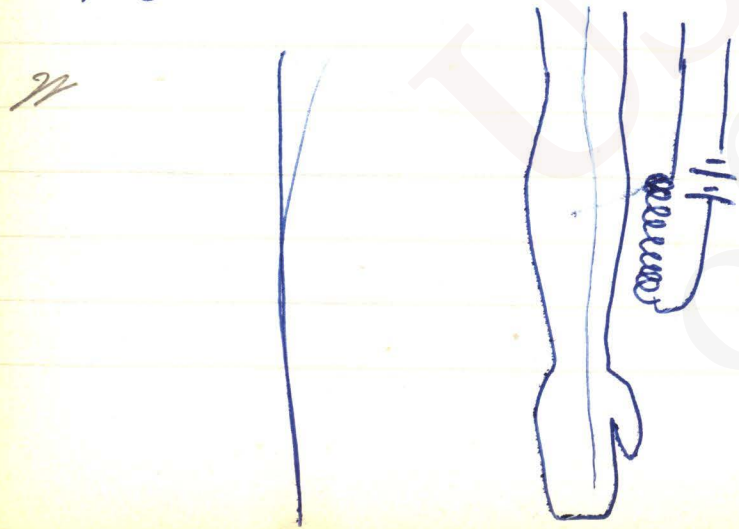
But we need not cut into the body -

We should by listening - & tuning in on nerve pulses - exactly locate position of nerves then focus & broadcast directly to the nerve - with focused induction currents.

By ~~at~~ all points in the nervous system - or if nerve has a definite frequency - to reach the appropriate nerve by tuning  
Thus eventually the Spectator can sit in a comfortable - dark - noiseless environment in an electromagnetically focused field - & live a tremendous experience - with his entire body - ~~just~~

[This will prepare the stage for a tremendous education & increase in I. Q.]

The Electronic suit or Electronic Chamber



- would a sensation be induced in the nerve by a current of electricity in a coil next to it?  
Try experiment

Focusing + tuning, & patterning

When writing your book on "design" show how the trend to words

Car rental  
Truck rental  
Plane rental  
Apartment ~~rental~~ <sup>rental</sup>  
Cafeteria ~~rental~~ <sup>Food</sup>  
Change of Country  
Divorce  
~~Change of Country~~  
Suit rental

are all leading to lightening of the personally owned baggage & our world becoming filled with new goods - towards a world of personally used goods

and show how the greatest source will be rendered by rapid efficient <sup>electronically</sup> centralized, profitless, automated clearing houses of goods - so all goods produced will be used effectively & too the social energies previously used to produce the now unneeded surplus (due to better distribution) will be channeled to great new enterprises - such as space travel - linemasters etc.



...priority for the  
...he favors government  
...earer the pattern of that of the United  
States. Should he be condemned for that?  
—From the Memphis Commercial Appeal

### Deadline

The United States, one of the world's leading producers of conventional fuel, must, by 1975 or 1980, begin to rely on nuclear energy for a considerable part of its power needs. How vital, then, must be the needs of Western Europe, still hopelessly dependent on the oil-rich Middle East. Throughout the world we are faced with a deadline in which the declining sources of energy from conventional fuels will ultimately vanish.

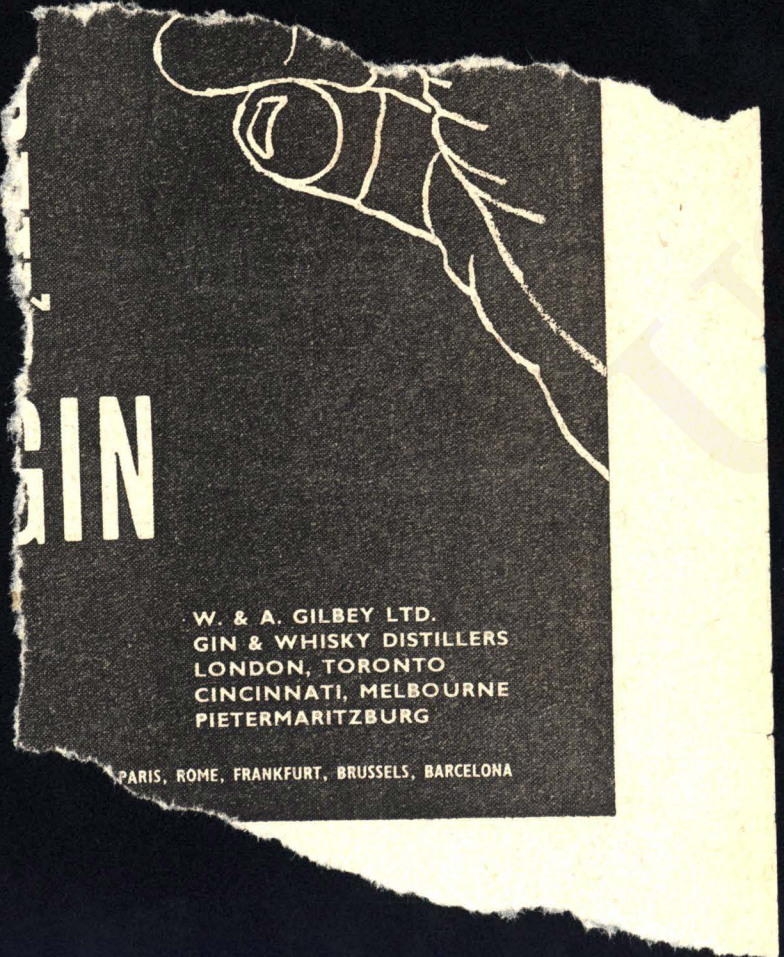
This deadline is not as far away as many people suppose. The unspectacular predictions of competent scientists place the limit year—despite new oil wells and improved techniques—around 1980 if world energy demands and population growth exhibit the same pattern as they have since 1900.

—From the Boston Herald

### Comfort

Someone once inquired why more midgets did not attend musical events in this country since the seats in our concert halls

Mr.  
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GIN

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Ethical laws are not only based upon what we know - but also upon what we can do and what we do do. That is - on extensions of what we know. But the distinction is important for though we may understand how to do something we may not have the means of doing it - & again if we have the means we may not apply them. Conversely we often do & design things whose internal functioning we don't completely understand -

Such as a primitive man's heaving or swimming.

### The Design of Social Togetherness.

It is probable that the ~~whole~~ process of ~~being~~ people being together will become as articulated, conscious and semi ritualized - the way ~~the~~ yoga is in comparison to western exercises or Judo in comparison with boxing. Good hostesses are women who know a lot of the art ~~from~~ in an empirical way but who have never bothered to write the rules - except in

old etiquette books -

The optimum group - (5)

Fed

Quiet

Comfortable

One small alea - coffee - cigarettes etc.

Time restraint -

Passing the ball

Sticking to topic

Conclusion

Critique of Persons -

Appointment for renewal.

Should make the rounds one at a time - with hand interruptions

Two big films - The Search for Energy  
The Struggle for Organization  
(The Struggle Towards Unity)

Each - 2-3 hours long

In Cinemascope - color

Older covering the world activities of man - ~~total~~ (covering efforts the world over)

Stereophonic sound - good

Intellectually clear - animation

Spiritually moving - poetic

With very careful ~~to~~ planning & small dedicated crew of 5 people -

← - Organizer - Director - Camera - Editor - Research Writer  
Each could be done for about \$300,000

Energy transmission - through air -  
Needs

1. Energy giver - <sup>powerful source</sup> as power full & <sup>Need</sup> most concentrated as possible
2. Efficient - channel - <sup>Transmitter</sup> Gathers 100% & focuses precisely
3. Receiver device - Converts energy completely back to more useable forms of energy -

Energy forms

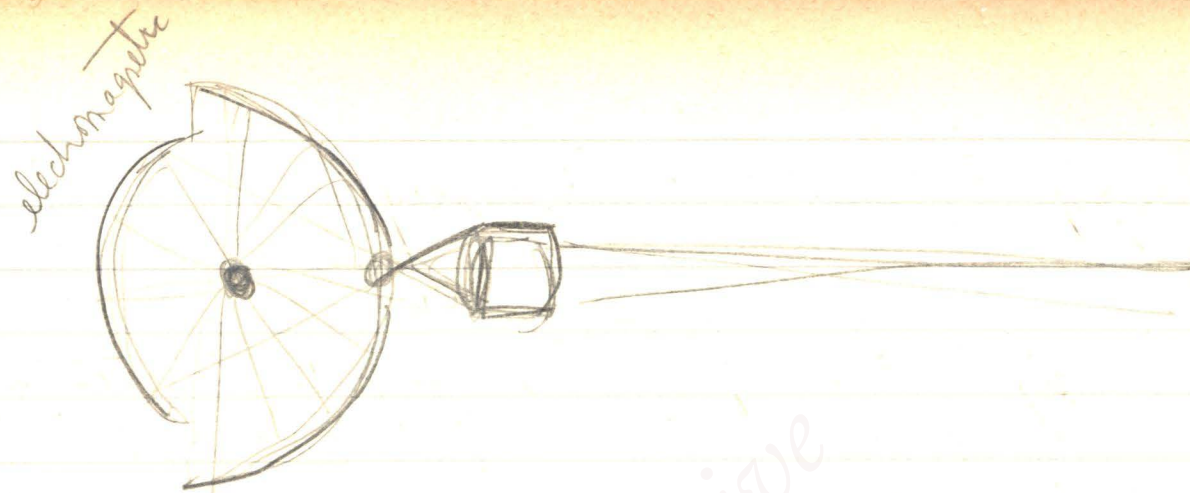
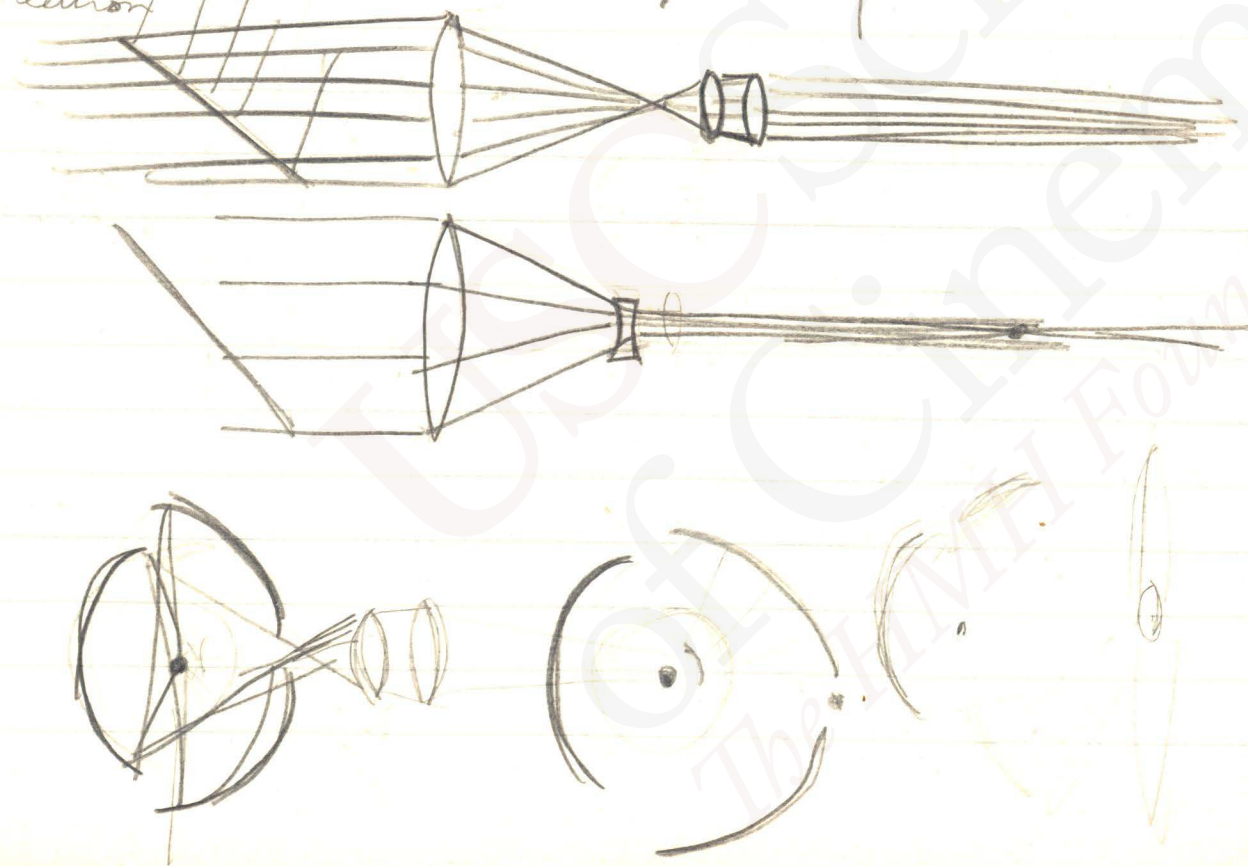
Light

Heat

Electromagnetic

Neutron

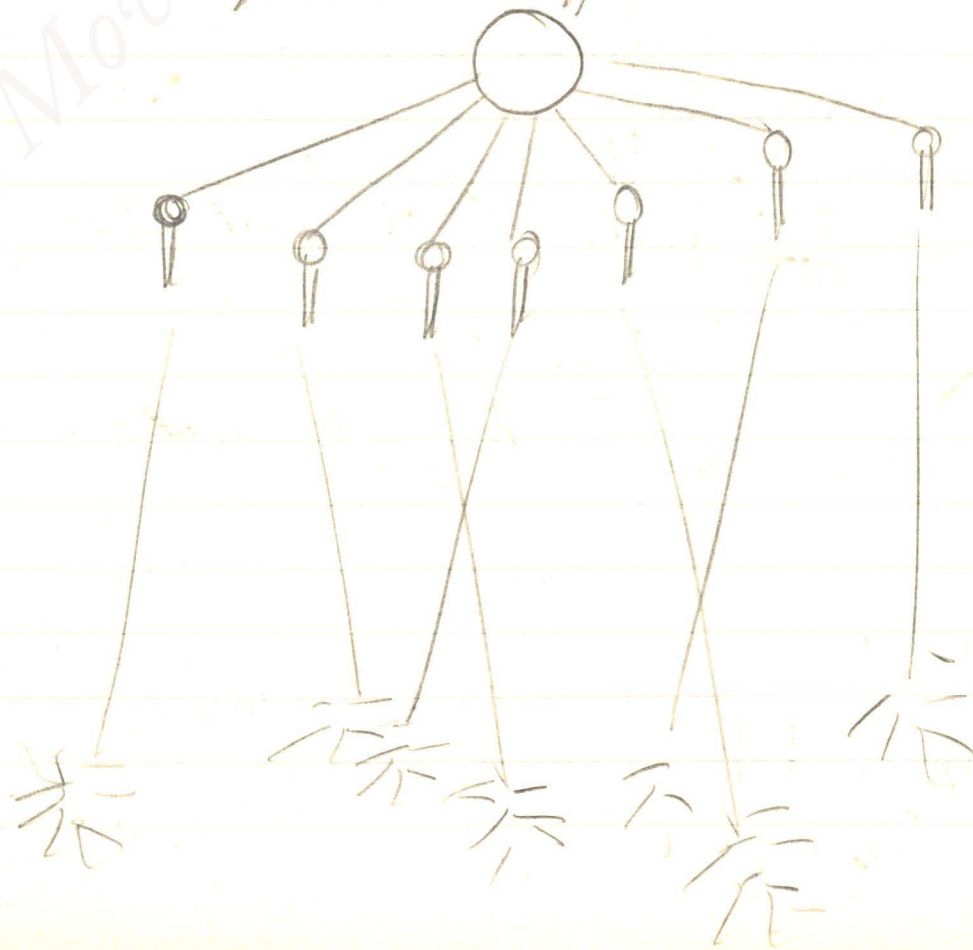
different wave lengths = different reflective qualities & materials & lens handling



can be used as a very efficient form of artillery gun or bomb - because it consumes nothing if it uses sun energy -

can eventually have one central atomic pile <sup>energy</sup> feed a whole regiments guns -

Atomic Energy core



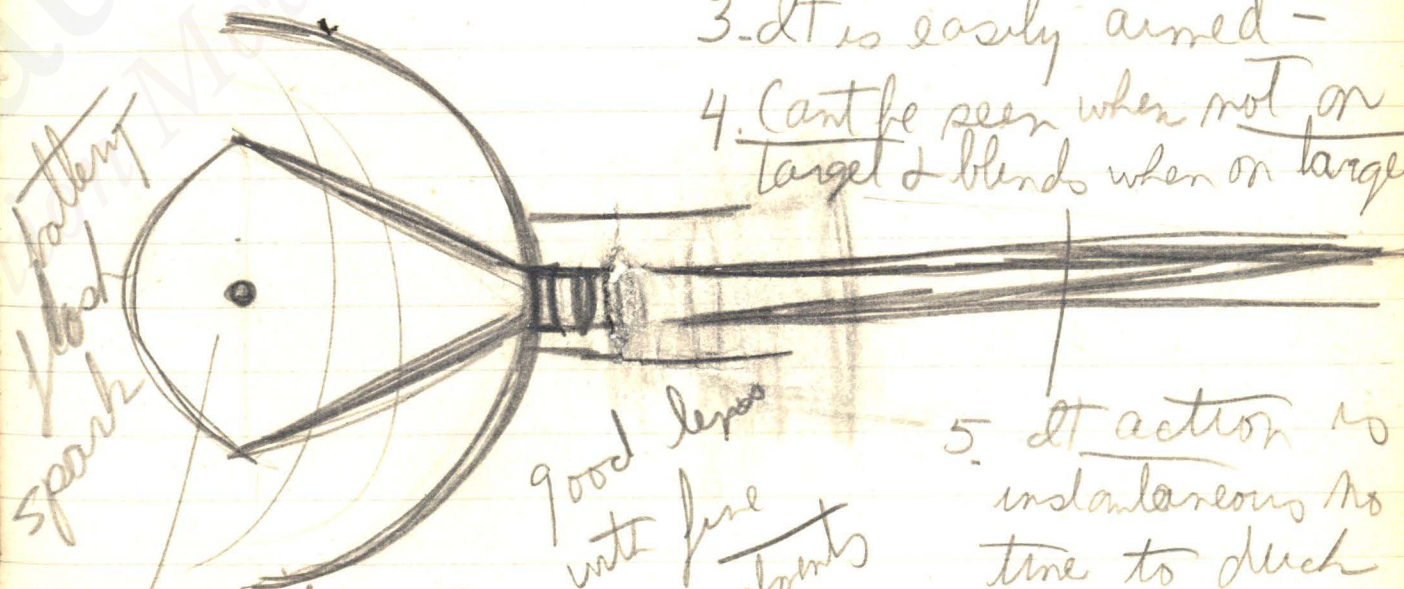
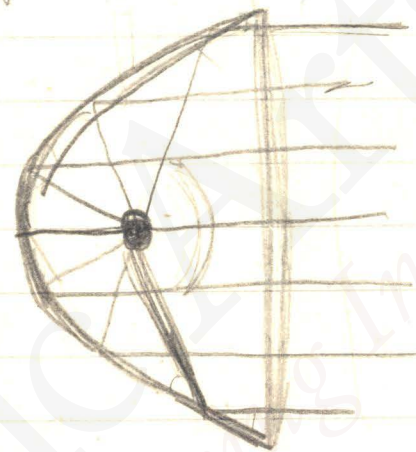
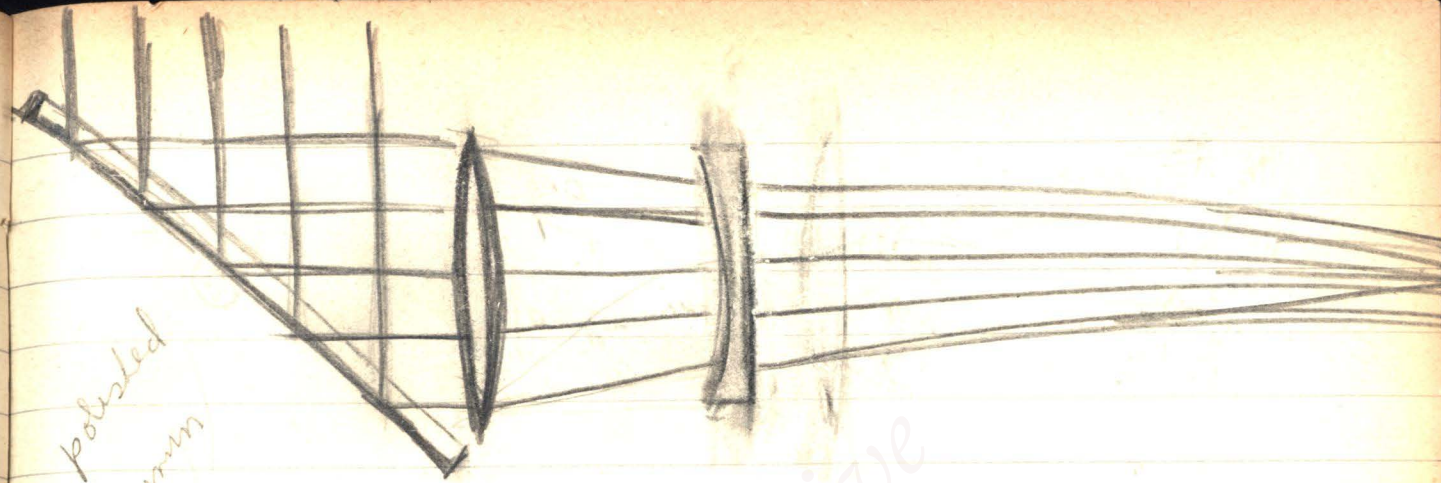
artillery or soldiers knocking out different targets

Take Matter & convert to Energy  
 Control & direct energy - so it will concentrate  
 exactly where I desired  
 and return to the manipulation of matter

1. Release of Energy through Hydrogen fusion
2. Capture of 100% of the energy released & focusing it through any medium - earth, water, air, space - at the desired point
3. Reconversion of the energy to useful work (or information)

Extreme accurate focus of energy is important because you thus surpass the critical burning stage of materials at which time it will suddenly burst into flames -

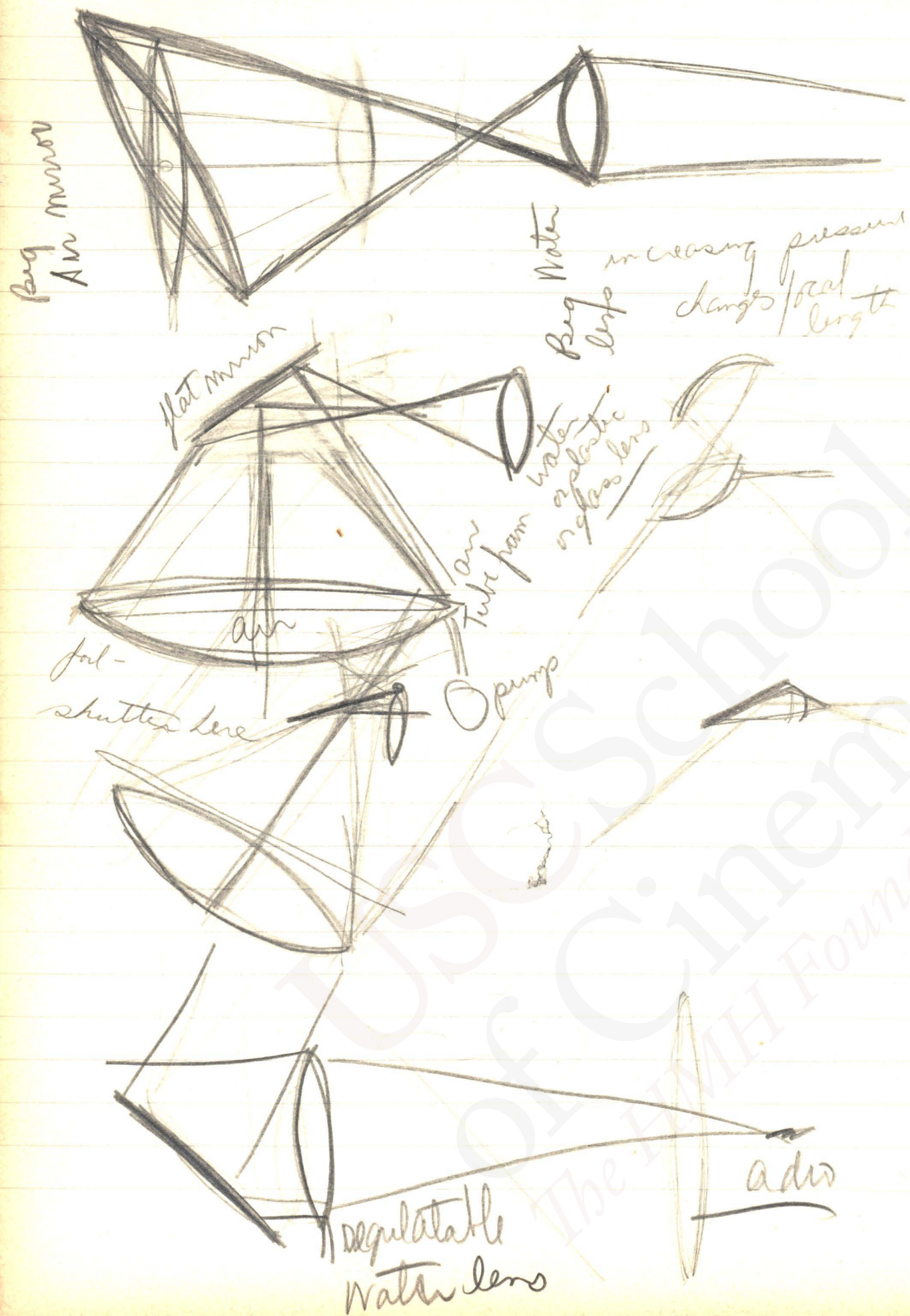
Everything must be fixed - no moving.



interspark - working on condenser flash prep repeats rapidly -  
 Can work out for invisible infrared rays - cont see beam at all  
 & eventually electromagnetic waves

advantages of the light gun -

1. Consumes no material - don't have to carry tons of ammunition
2. Shoots very straight
3. It is easily aimed -
4. Can't be seen when not on target & blends when on target
5. It action is instantaneous no time to duck
6. It is silent



The essential problems of our civilization is  
 1) The release of energy  
 2) The Manipulation of energy for ends desirable to man

Atomic energy & electronics represent the two most sophisticated steps in the 2 fold problem.

But what is important is to understand the basic connection - underlying & unifying these 2 apparently separate fields.

It is restating in modern times the age old problem of body & mind - physical & spiritual - today - Atomic Theory & Information Theory.

Physical Force is much more universal than information. Electricity will shock man & dog alike - but the message contained in the electrical code will have meaning only for man.

The same force is both force & meaning.

The light coming from the sun - if handled one way becomes a photograph - if handled another way it can destroy.

You never have "pure energy" - it never exists in the abstract but only in some specific form.

The relationship of physical force to pattern -

Usually, we need much more energy to effect physical changes - like to rain ~~down~~ people

Information requires "energy" - small quantities of it but it requires it & conversely energy requires pattern - otherwise it cancels itself out - does not accumulate

A law of conservation of energy & pattern will probably be found to be true -

i.e. in reality it takes as much extra energy to arrive at the (possible) pattern as the pattern is capable of releasing

Design is the key to relating matter to Energy -

A certain configuration of Matter ~~is~~ Energy -  
A certain configuration of Forces is Matter

One arrangement of energy ~~is~~ usually small amounts spread out over time will effect mainly our nervous system  
A certain ~~is~~ arrangement of energy will accumulate sufficiently to dramatically effect physical objects in a ~~short~~ time.

i.e. different form of energy such as -

Light - inf. can be used to convey information or physical force depending on ~~the~~ arrangement  
Sound - inf.  
Heat - force  
Electricity - both

(You must realize the <sup>entire</sup> distinction between info from force to man.)

Up to now we have had ~~physical~~ science - investigating physical things -  
We have concentrated on the production of material things and enjoyed up till now primarily the consumption of physical things

Now we are entering the era of organization, service, action - ~~the~~ & of consumption by the nervous system

In Science the most conspicuous development in this direction is ~~the~~ "Communication Science  
In Production - it is the second Industrial Revolution - automation & electronics

In Consumption - it is the building of ~~the~~ Experience machines for individuals - ~~small shops~~ and entire communities "Experience Halls"

When the nervous system of man is exposed the great world of action & ~~the~~ sensation & E experience.

Until now we have tried to effect the nervous system through the body - now we will begin ~~the~~ reaching the body - muscles ~~the~~ through the nervous system -

Possibly one of the greatest fallacies of our time is to think that one man no matter how brilliant can comprehend it. I believe this is utterly impossible in its fullest sense. With the passing of each day, <sup>individual</sup> man is becoming a tiny cell in the giant social organism. Since the reason detire of the larger organism is to achieve level of functioning impossible to lower systems of organization (such as a cell) it this automatically means the ~~idea~~ lower unit cannot even begin to comprehend the higher unit. Copying the lessons of nature - a great collective brain trust

is required and an eventually - electronic having that are the truest organic expression of collective brain power because of their ~~own~~ cumulative ~~concretized~~ nature.

---

Study Electronics & all Communication Sciences seriously.

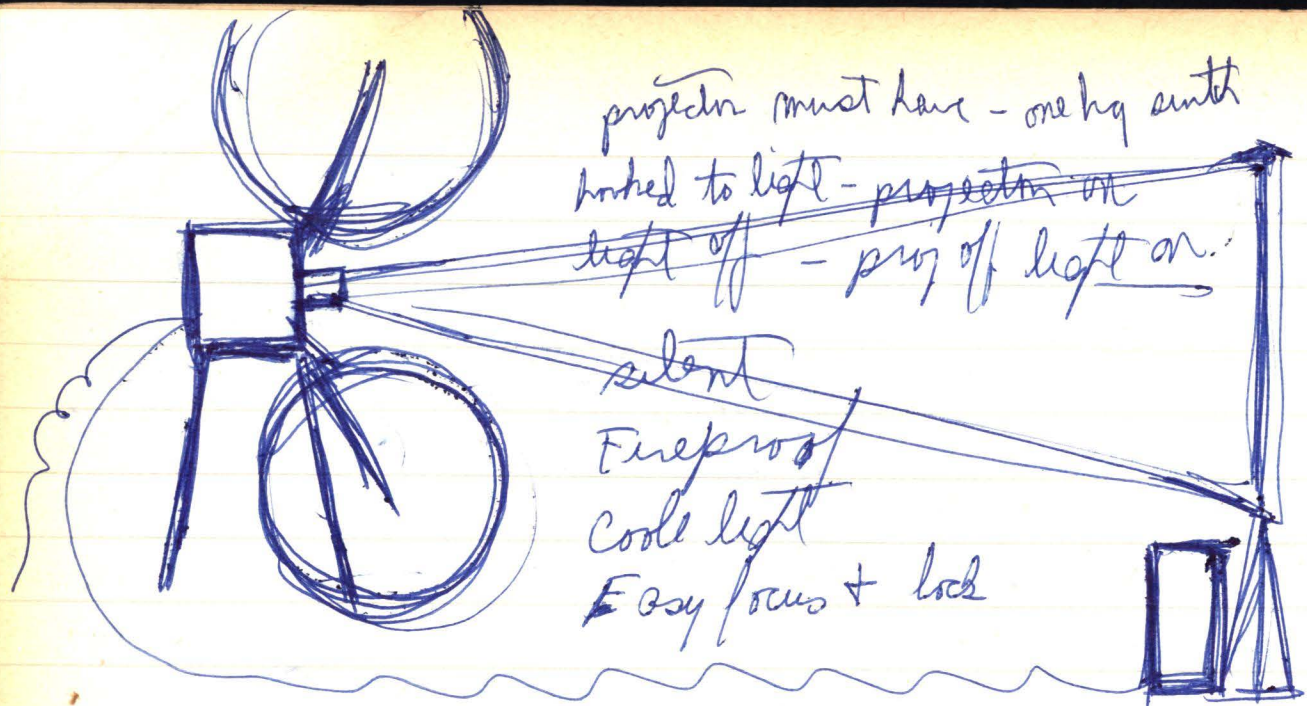
Starting the Fall of 1958!!  
Find the money & go! ~~than~~ go!!!

---

Economics of a Film + Projector rental system.  
(possibly do all in 8mm sound projectors & 8mm prints)  
(Equipment must be simple rugged & easy to operate)

Distribute catalogue - with easy instructions - prices & numbers - to whole sections of homes - ~~the~~ (key numbers) deliver & set up - complete 2 or 3 hour shows on one roll. Big - on - off switch. Delivery man sets up - states down - <sup>all customer has to do is throw the switch</sup> in alleys - <sup>automatic shut off</sup>





projector must have - one by switch  
hooked to light - projector on  
light off - proj off light on.

silent  
Fireproof  
Cool light  
Easy focus + lock

in 16 - must hold - 2 hour reels  
in 8 mm must hold 3 hour reel -

machines must be silenced -

Go around giving free  
demonstrations - on apartment  
in each building invite neighbors  
leave catalogues -  
They get idea of the  
procedure & split  
expenses -

arr - rent  
cost 2,000 \$8  
initial cost paid back in 250 days

proj  
cost 300 \$1 per week  
per day

Film cost

~~2~~ 2 per minute or (10 min)

~~240~~ 120 minutes = 240

\$240 = \$2 (or \$1 per hour)

120 days paid back -

3 Time Periods -

9 → 1

1 → 6

6 → 12

Cost to Consumer \$3 per day

See What you want - when you  
want -

Feature films

Scientific films

Films on art

~~Films~~ Films on Foreign places

~~Industrial~~ Films on industry

Films on Medicine

~~Historical~~ films on history

Comedy -

Cartoons -

Films about Medicine, etc

Have the advantages of the movies - by color films  
uninterrupted - by advertising or station breaks

the advantages of TV - seeing interesting & educational  
programs in the comfort of your  
own home

Plus these extra advantages -

See programs never shown in the  
movies or TV.

& See them exactly when you want  
want to see them -

The whole operation must be run in 8mm.

1,000 for the projector with screen & source  
1,000 per hour of projection time  
1,000

3,000 for a 2 hr show -

- Investigate -
- 1) Quality of 8mm projectors <sup>around</sup>
  - 2) cost of projectors - 8m -
  - 3) cost of screens
  - 4) Cost of 8mm prints
  - 5) Life of each print
  - 6) No of personnel & cost
  - 7) advertising & phones etc
  - 8) Cost of royalty to owners

\$1 rental projector + screen - cost 300 - repayment 300 days

\$1 hour film - cost 50 - repayment 50 days

Life of film 300 runs - \$300 - earning power  
 50 cost  
250 net - operating offer  
 100  
100 profit offer ~~300~~ days

Starting Capital -

6 units - x 300 = \$1,800 equipment

6 x 2 = 12 hours of film. 12 x 50 = 600 film

\$2,400

2 mend at \$30 per with \$60 x 4 = 240 for a month  
~~200~~  
200 miscellaneos  
\$2,840 for a month

6 x 3 = 18 x 30 = 540

Start off with - one unit = \$300  
 one great - 2 hour program \$100  
400

Expenses per week - ~~100~~ 100  
\$500

7 times a week - "3" = 21

The lesson - Must keep manpower efficient  
 a low and prices up to \$1,000  
 1,000 for projector  
 1,000 an hour for films - \$3,000 or \$5.00  
 average program

Must have - 2 men  
 I trucks  
 10 complete units  
 and 20-30 hours of film -

10 units  $\rightarrow 10 \times 300 = \$3,000$   
 I truck -  $\$1,000$   
 3 hours film (30x50)  $\$1,500$   
 2mm - 120 per mm  $\$3,000$   
 $\frac{240}{2}$  mm  
 $\frac{12}{480}$   
 $\frac{240}{2880}$  + lens - 3000  
 $\$1,500$  repairs  
 $\$10,000$  operating exp  
 for the first year expenses

Earning power - if each unit works once a day -  
 $5 \times 10 = 50$   
~~365~~ 365  
~~50~~ 250  
 300  
 150  
 $\$18,250$   
 Can clear  $\$8,000$  in first year - invest in


10 more units - 3000  
 60 hours more film 3,000  
 1 more man & ~~1~~ 1500  
 1 more truck 1000  
 advertising 1500  
8,000

3D - Theater - select centrally located theater that has folded -

- Copranica - & rent - (ATC)
- Build 3-D - cinematoscope Camera - (ATC Sculati)
- Link 2 projectors -
- Write & Shoot Film - (Heilig)
- (Heilig)

50 advertising & promotion  
 300 & glasses  
 15000 -  
 clear  $\$5,000$   
 3-D - cinematoscope

- more units

- Discovering Italy - Summer Theaters close -  
 1) Vacation in Italy - 2 hour 3-D film  
 on Italy - Italian Holiday  
 2) Holiday in Italy  
 with four language head phones attached to  
 polaroid glasses -   
 Italian - English; French + etc

Cinema Barberini

a few  
 Odors - Air Conditioned  
 & cool

Production Money -  
 from AT Tourist Ag.  
 CIT  
 American Express

A Cinemascope Still Theater in  
 Lobby -

sell 3-D  
 Peripheral slides & reverses  
 of Italy

all major places.  
 all major - festivals

~~500~~  
600 line attached

3-D  
 exclusive  
 on a subject

Earning -  
 1000 people  
 600 line  
 600,000  
 3  
 1,800,000 line

\$3,000 per day

~~100~~  
 100

\$300,000

\$50,000

\$50,000

\$100,000 expenses

\$200,000 sum

100,000 profit

50 = 50 with me & ATC

~~25,000~~ film -

50,000 - 30,000 -

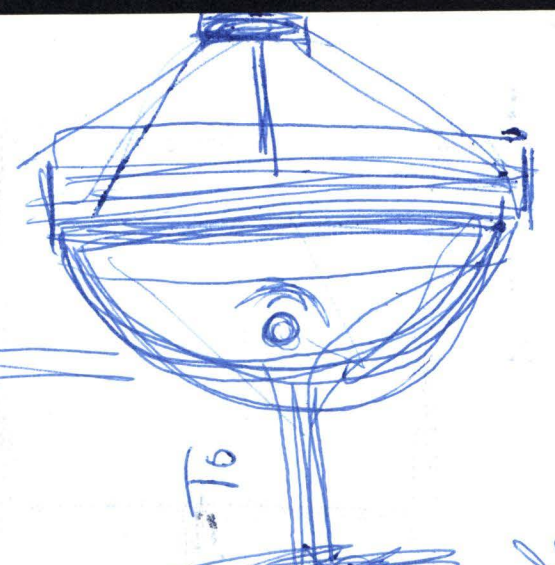
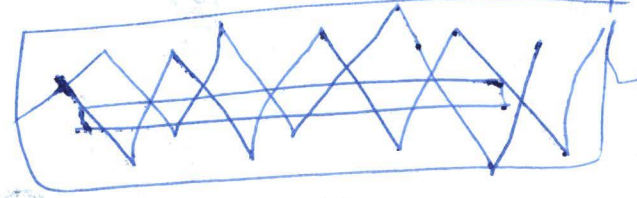
~~20,000~~ -

\$15,000 equipment  
 program program

10,000 line cash -

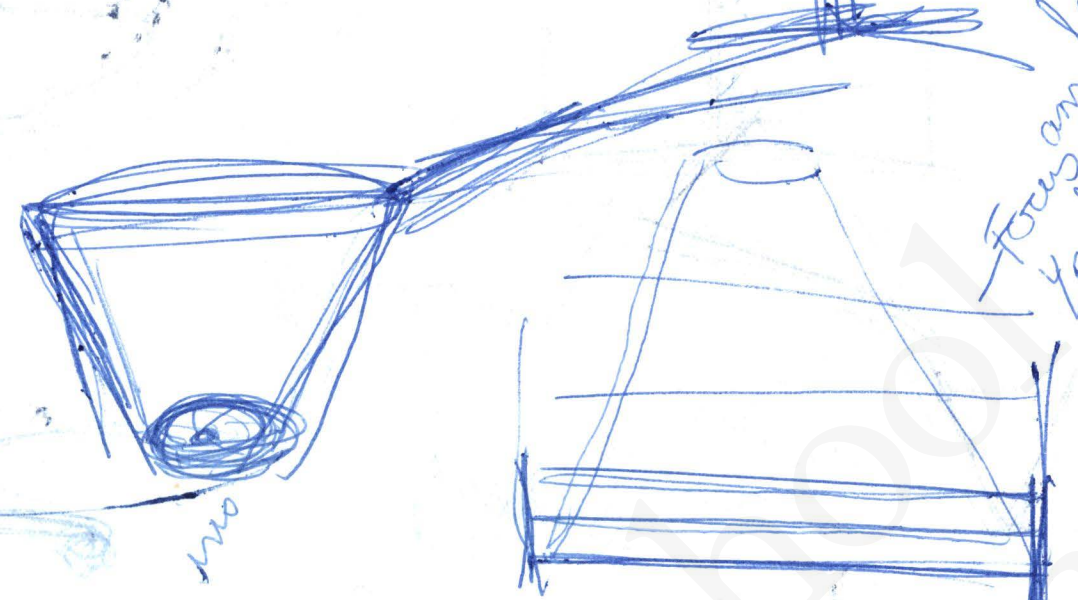
different good styles

angular reflector

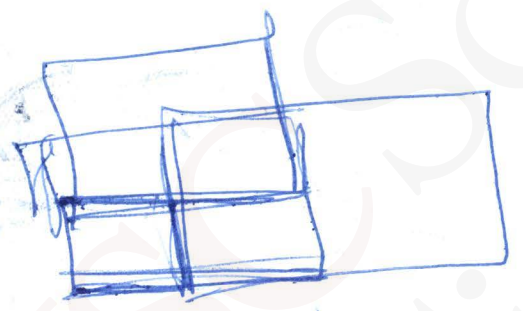
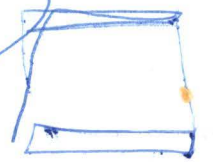


T6

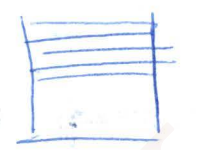
Focus any layer you like



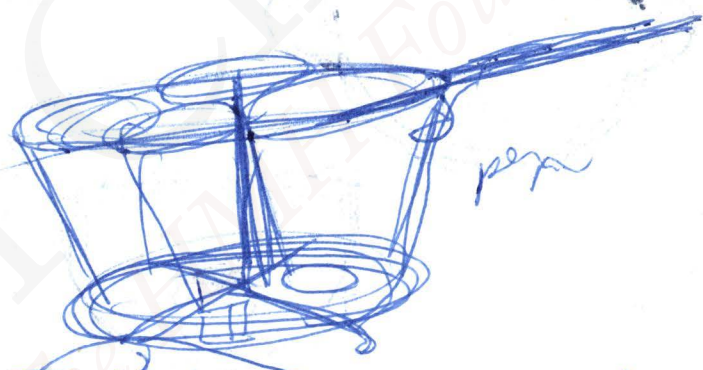
Painting with light



different glass layers

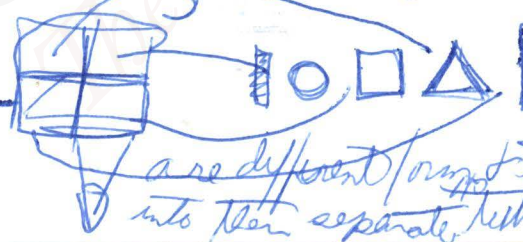


2 slides in appen



per

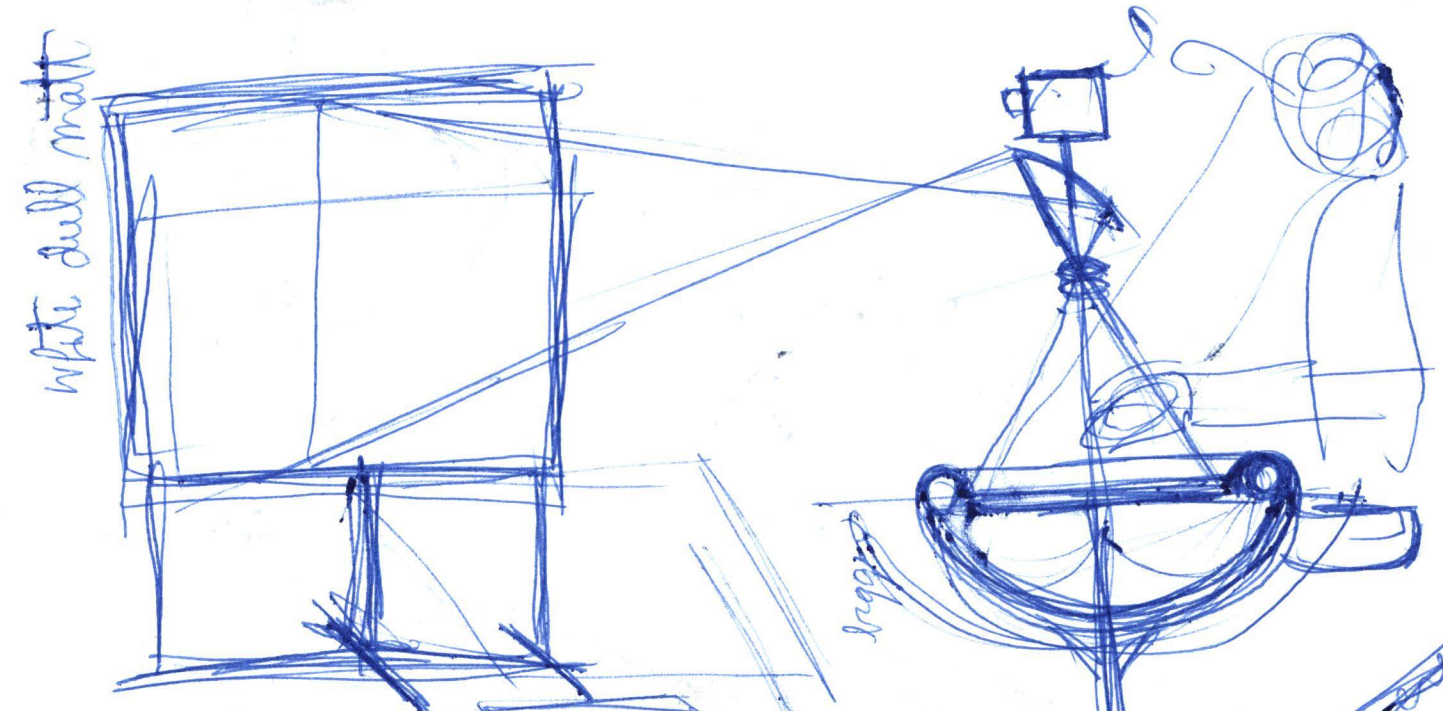
Single painting tool carries all colors & dyes types - Starts & releases color on pressure



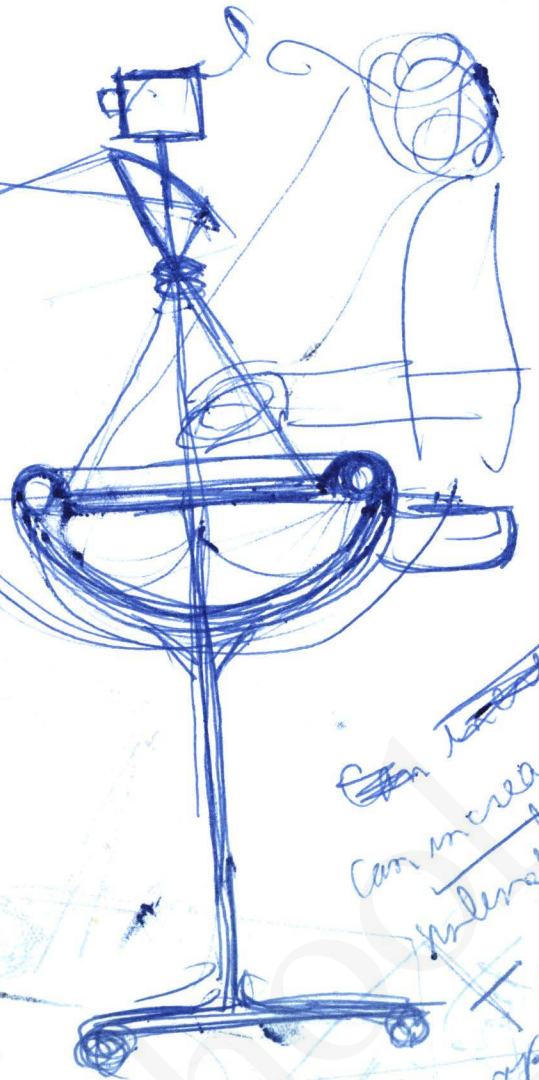
color names

are different / they sit back into their separate tubes

white dull matt



request



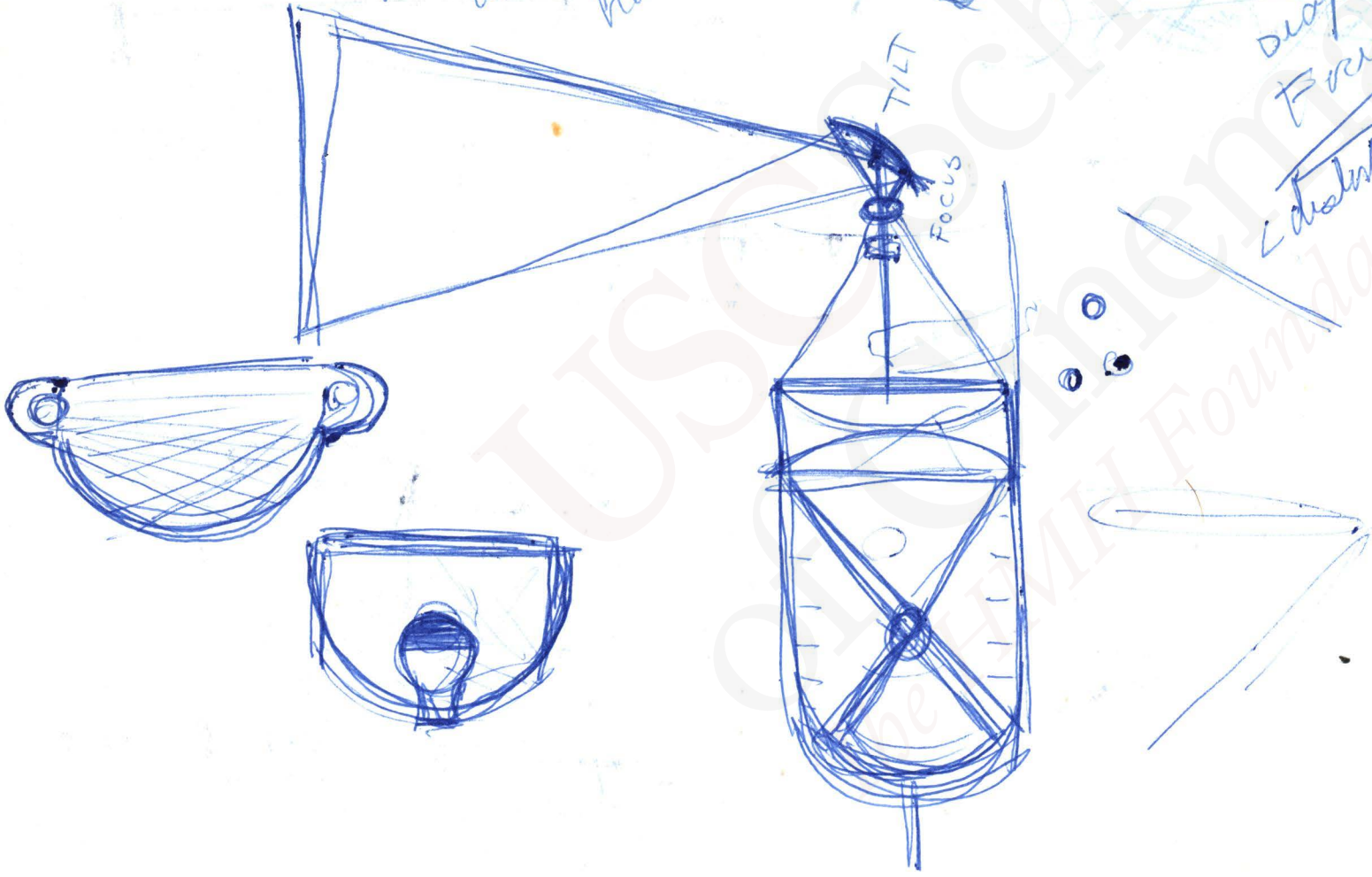
Can increase light intensity

diaphragm  
Focus  
Calculation



color Celluloid  
grains  
all colors & black

TILT  
Focus



In taking of the role of Cinema & TV in the world of Tomorrow - we must ask 2 questions - what is the role of any communication media <sup>in general</sup> & Cinema & TV in particular and what will the world of tomorrow be -

Answer - The role is orientation -  
 Giving the individual concerned a correct view of the forces about him and <sup>conveying</sup> ~~communicating~~ his desires back to the ~~the~~ effective means of action -  
 For Cinema & TV at - the quick reaching of deeper realms ~~of~~

The world - is changing - is that area of awareness

rapid hand & communication - <sup>from atoms & cells to the ends of the Universe</sup>

In a child it is self -  
 Then family groups  
 Then familiar objects  
 Then - a city or institution  
 Then the State  
 Then Humanity & Universe

Coordination & Control  
 both due to the individual's development & that of society it is continually expanding

or to be more exacting - expanding areas of people & things

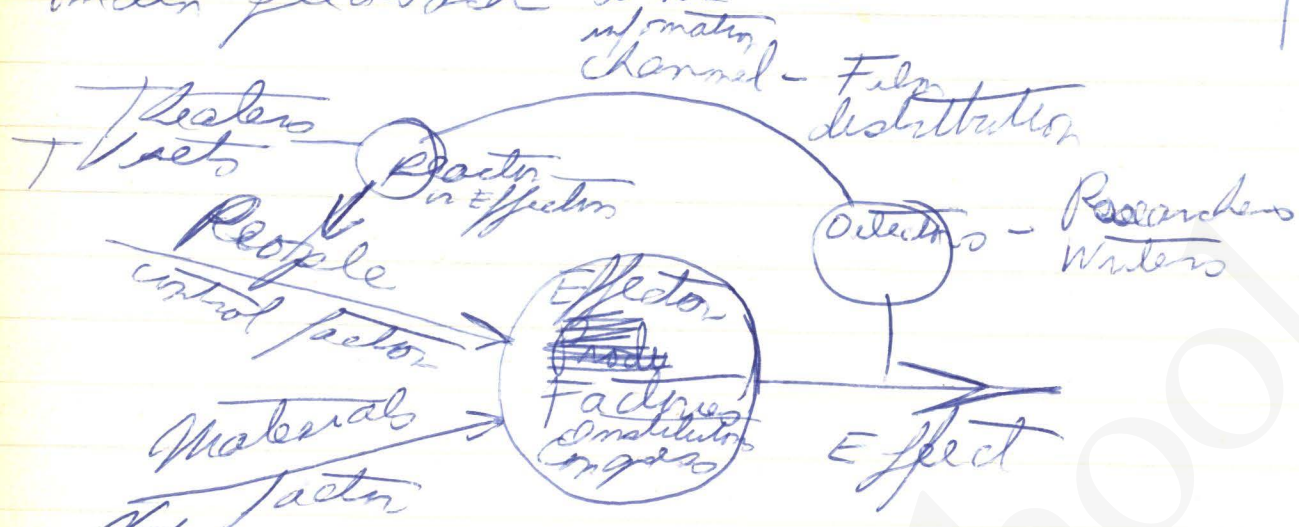
Self - Bottle - Bed  
 Family - Household articles - rooms  
 Friends - City - Area - Camps  
 Nation - Sky - Water - jets  
 Humanity - atoms - Universes - Animal  
 - plant kingdoms

Logically then the orientation media ~~should~~ fit the age & 2 illuminate the individual's relationships to the area of people & things he is interacting with at the time of his personal & ~~the~~ evolution & that of the society he lives in

Orientation in its fullest sense means he should be put on familiar convenient terms with it  
 i.e. Cinema of the future must enable man to see, hear & smell & touch - Humanity - the earth - microbes, electrons, fish, nebulae - be affected by them & return effect them - i.e. be put in a position to

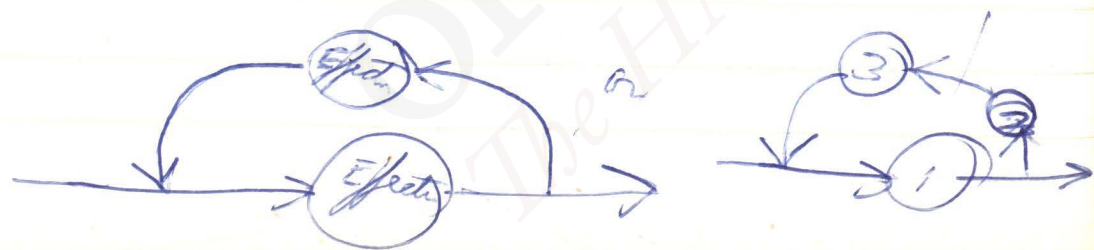
## A true 2 way conversation.

It seems that in the action of the Social Mechanism - Cinema serves as ~~the~~ one of man feedback link.



When the industry sees its role this way & executes it - it will function at its highest level.

In reality there are 3 machines - hooked in reverse - order - like 2 paramedon - in a sexual cycle



Cinema feedback to the most critical and powerful causal factor - The mind of man

## The Laws of Good Expositioning

1. Do not show a paragon of all you have
2. Select one or 2 ideas and show them fully & dramatically
3. Don't make the show fit only what you want to say - but make it fit what the spectator wants to hear & the way he wants to hear it
4. Put yourself in a spectators shoes imagine what he is ~~is~~ ~~to~~ ~~so~~ thinking for then feed him abundantly
5. The spectator exists in change - He loves movement - change - development He will watch a poor model <sup>that</sup> moving rather than a masterpiece still
6. Make the exhibit as realistic and complete as possible - i.e. fitting it to the spectators natural means of perception.



i.e. Bring the world to him rather than make him go to the world.

6. As natural extension of the idea of realism let him interact with the realism as he does in real life i.e. let him touch it, dance with it etc. His emotional response will be 10 times greater & more fulfilling. No spectator wants to watch passively. He wants to try it & do it himself.

above all do everything well & in good taste or not at all!!

~~Idea~~ Ideas on surrounding the Spectator.

& the 5 or 6 man Chan at the Fan.

An optical lens focuses everything on one plane - ~~the~~ human seeing doesn't do this - it will if looking at a total - but if concentrating on a detail in that plane - it focuses it much more sharply and of course obtains more information from it. We somewhat duplicate this by moving in for a closeup - but this is not quite the same -

We have to develop <sup>movable</sup> focus screens - that can <sup>quickly</sup> throw everything but the desired area out of focus -

The three device should work in unison i.e. 1) movement of the camera - closer to the object

- 2) Focusing of the lens
- 3) and 3) softening of uninteresting areas.

It ~~will~~ should work like this -

See a total of a room - All areas soft except one man's face  
Dolly closer to that face to give more information from it.

Woods for 1939  
Brussels 1958  
Disneyland —

all studies  
in the dramatic  
expression of the  
situation of life of Man.

This whole idea must & will be  
expanded — ~~in a way it will be~~  
Each sizeable town will have its  
Experience land — where exhibits  
will change once a month —

which will call on the talents of  
painters, architects, designers,  
composers, directors, writers,  
actors, dancers — engineers & scholars  
and scientists —

Each month — a new theme will  
be dramatized & lived by the  
spectator —

or each building will honor  
~~an~~ the progress or discoveries  
of a new field —

The exhibits will be related in  
time & space.

The main thing is that <sup>it is one way of providing</sup> ~~allow~~ for direct  
human participation ~~in the way~~ in a  
~~new~~ situation —

The whole technology of inflated walls  
etc for rapid economical change of  
exhibits will have to be developed.  
& changed <sup>electronically</sup>  
Like the ~~the~~ Combeys prepared study

It will develop side by side with  
the — Experience Theater and  
the Sinodrama Chain — fed by  
tape — which is in a way the  
most economical & advanced  
concept of the two —

The Disneyland idea — is more limited  
in terms of reproduction and  
distribution but possibly more  
advanced in the development of the  
technology of actually reproducing  
& reality —

i.e. the atomic reconstruction  
of man & matter —

I.E. your book should not be called "The Film of the Future" but

"The New Experience Industry" and should embrace -

1. Motion Picture
2. Television -
3. Fairs -

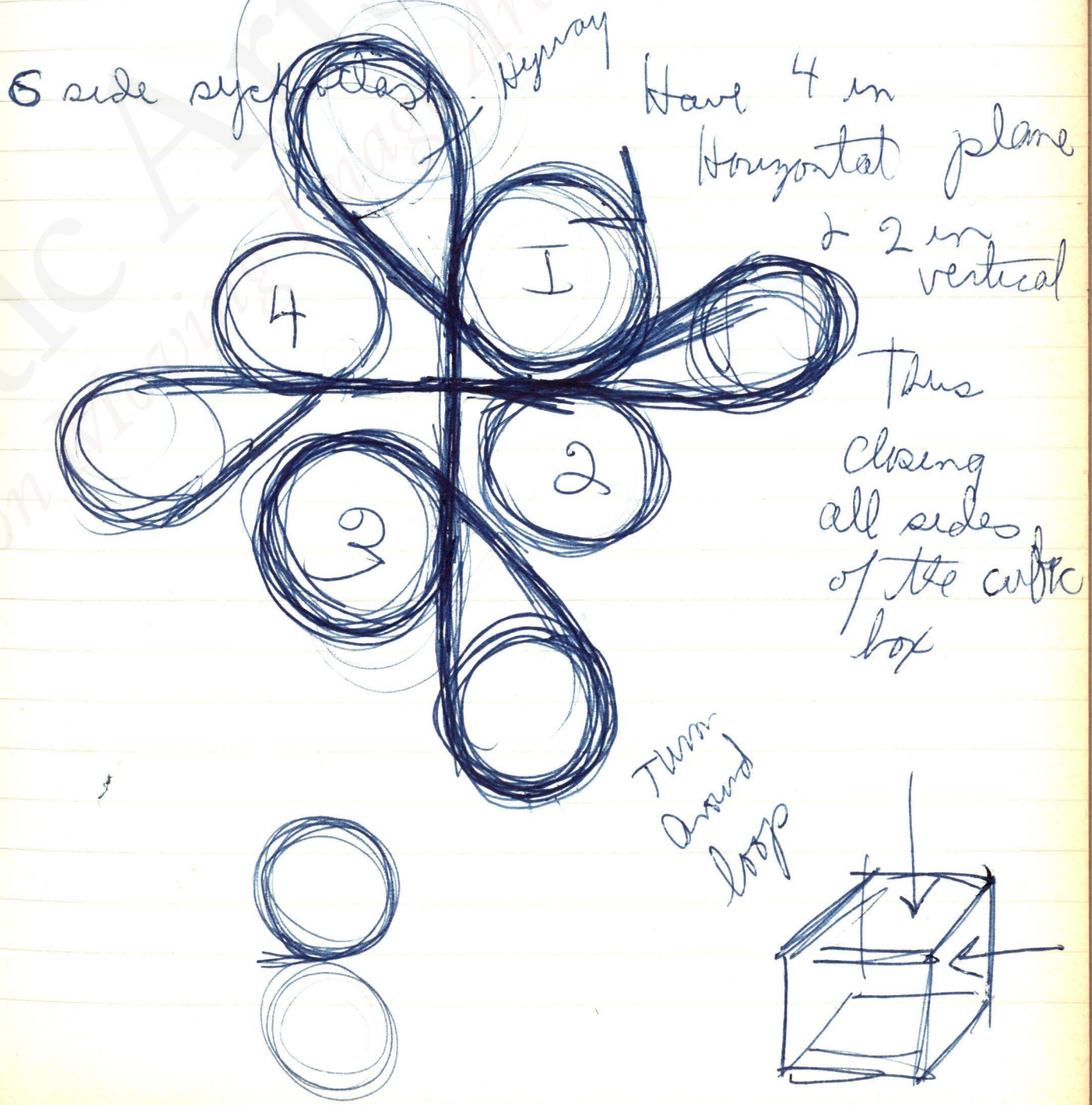
Background - painting  
Theater  
Churches  
pageants & festivals

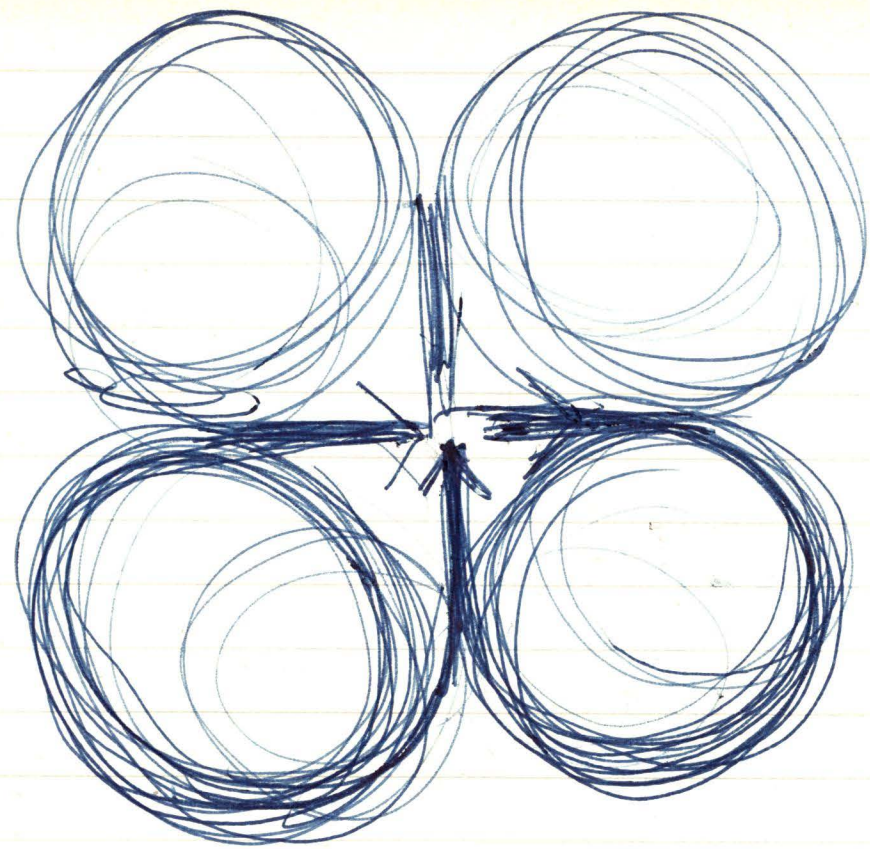
The ~~history~~ past, present, and future of ~~the~~ ~~medium~~ ~~of~~ ~~dramatizing~~ ~~and~~ ~~expressing~~ - ~~the~~ ~~place~~ ~~in~~ ~~reality~~ ~~the~~ ~~world~~ - universe

"The Evolution of Social Expression"  
"Dramatizing Ideas"

Research - History of the Theater  
History of Churches  
History of Fairs < world & industrial  
History of Cinema & TV

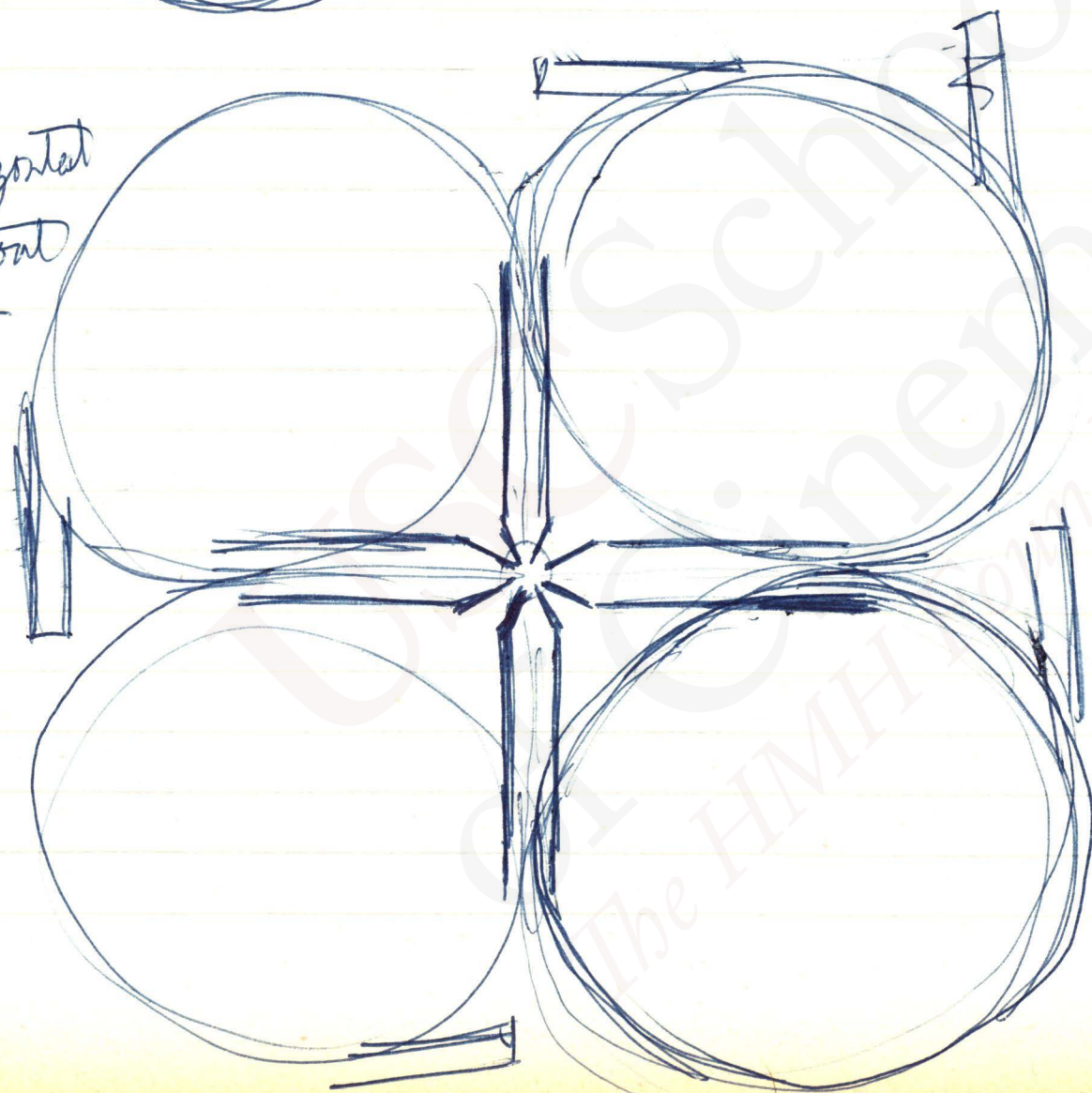
Visit - Disneyland -



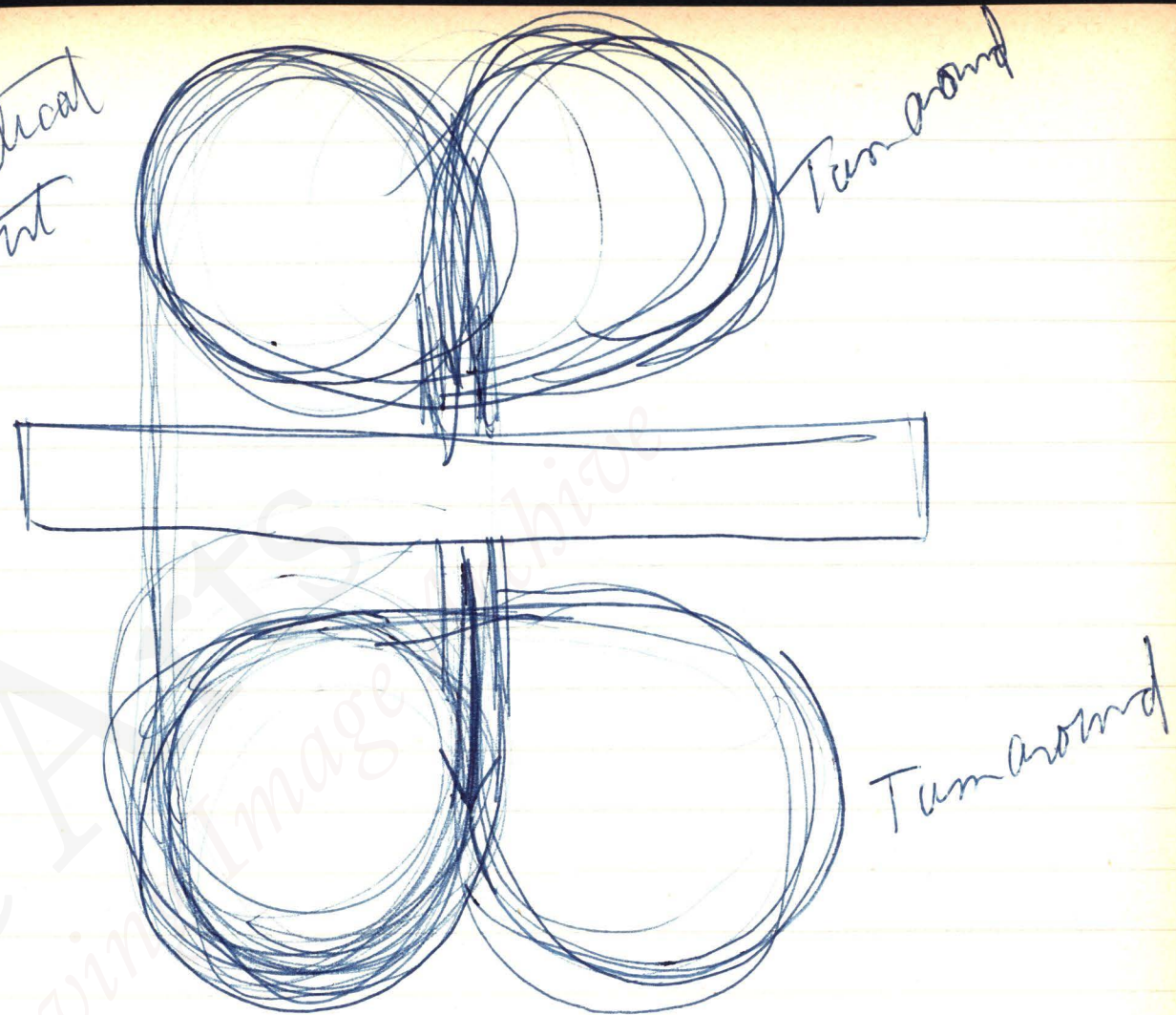


1.

Horizontal layout



The vertical layout



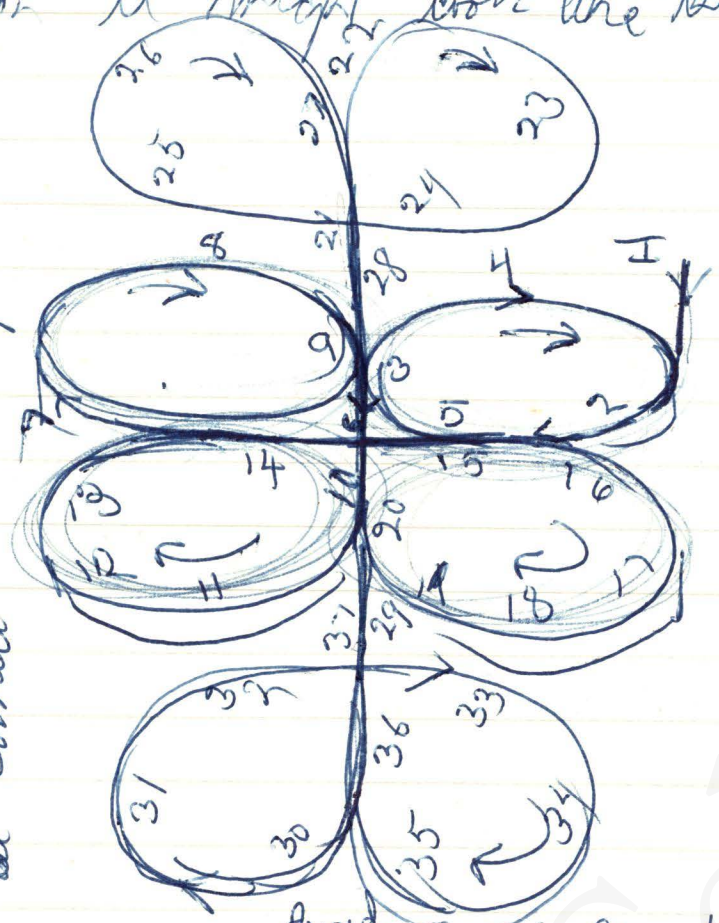
~~These should be seen~~

Horizontal set works as follows -

1. Protons are fed in -
2. accelerated on all 4 tracks - <sup>in clockwise</sup> direction
3. Sent down linear accelerators simultaneously
4. at instant of collision, all accelerators reverse field - drawing off particles that bounce off. (accelerating them through the crash)
5. Protons are <sup>not</sup> fed into the same accelerator by the linear tube but into the next one -

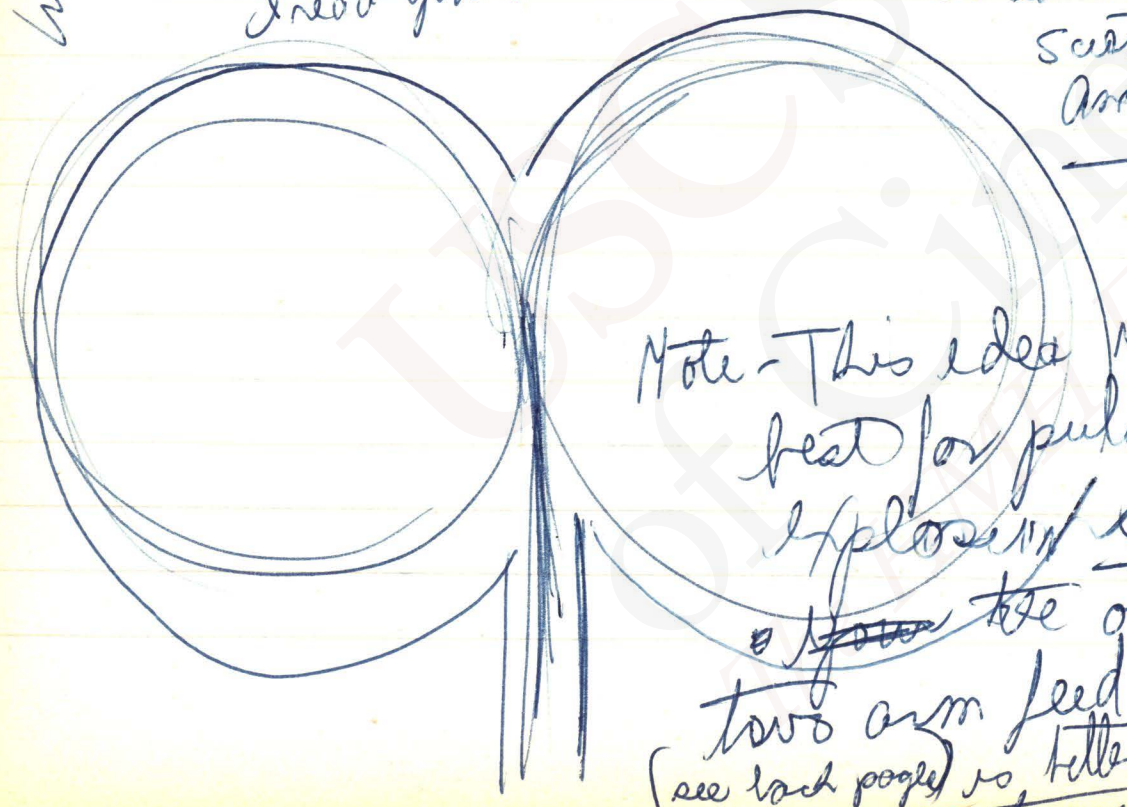
Write up this idea & send to  
Robert R. Wilson  
at Cornell University

Thus if we were to follow the <sup>path</sup> of an unmarked path it might look like this



This way you have maximum compression & maximum salvage of Wasted Energy for reuse

I need your article in March 58 edition of the Scientific American



Note - This idea is best for pulsed exposures - ~~from~~ the other two arm feed & take out (see back pages) so better for continuous exposures

## The Future of Cinema & TV

a book to make the industry aware of its own tremendous potential

Cinema must achieve the <sup>full</sup> intellectual integrity and spiritual fulfillment of a good book or the <sup>common</sup> people whose greatest desire is to learn grow and improve themselves - will ~~then~~ ~~not~~ ~~leave it~~ walk away (and refuse to waste time on it)

The public is just becoming aware of the fact that we are not at the end of our scientific and technical progress but only at the beginning of it.

Think of what a change would occur in our <sup>mental</sup> perspective in our everyday world outlook if we (likewise) ceased to think of man as the <sup>creator</sup> glory of creation, ~~king of all~~ king of all living forms, made in the image of God, etc and more & more began to think of him as only one more step in a biological evolution that reaches endlessly upwards to higher and greater consciousness & control.

The worm is unaware of <sup>L10</sup> ~~the~~ <sup>The lion</sup> ~~the~~ of man  
 and each d m surr is concerned that  
 they are the lords of creation - (for they  
 are the centers & lords of their own worlds)

Man must not repeat the same errors of  
 egotism - which serve well for stomach  
 filling but not always for truth. We  
 must realize that things more conscious  
 than ourselves most likely do exist  
 on other planets (2). We can greatly  
 elevate our intelligence & consciousness  
 by disciplined living and training -  
 in general. (3) By new developments  
 in scientific experencing -  
 such as the sensorium suit -  
 hypnosis, foods etc. and (4) by  
 selective breeding (5) by deliberate  
 alteration of the germ plasm.

I for my part am currently most interested  
 and enthusiastic about step (3) it  
 may prove to be the soundest & least  
 dangerous in the long run.

It would be ideal if some way were  
 discovered whereby experience could  
 alter the germ plasm - In any case  
 all steps (2) (3) (4) (5) should be looked

out harmoniously as a single program.

(12) The meeting of <sup>the masses</sup> ~~the~~ oriental religion - (clarified by  
~~scientific~~ <sup>modern</sup> physiology & psychology) and  
 electronics should be brought forward and  
 explained in intellectual <sup>dimension</sup> power of mankind.

One of the key ideas of your book - During the  
 atomized Film + TV industry a banner  
 about which to rally - ~~on and towards~~ a  
 common purpose around which it can  
 organize itself - and guide its development.

Psychical Engineering Inc -

Combination of Engineers & Artists - moving  
 Teams of

into every area of Life  
 transforming it from a  
 limited physical experience into an endlessly  
 changing psychological experience -

Homes, Vehicles, Sports arenas, swimming pools  
 Ruins, City - Country sides ~~the~~ Experience  
 centers etc.

The main point is that life & the world around us like an ocean full of meaning beauty and stimulation for our living energy - and yet we live our daily ~~lives~~ lives with our eyes and ears stopped - Like enclosed in a tiny opaque bottle instead of free in the limpid ocean -

The great mission of ~~Psychic~~ Experience Design Inc will be to use <sup>all</sup> Western technological techniques for breaking down the barrier between man's inner soul and the world's outer soul



Communication Design Inc  
 Psychic Engineering Inc  
 Experience Design Inc  
 Design for Communication Inc

The People  
 An integrated group of Experts  
The Place  
 A designed Community  
The Purpose  
 A dedicated Religious goal of Scientific Humanism

There are 2 ways one either retreats from life - or goes through it. The west has chosen to go through it. I have ~~also~~ also Happiness - & fulfillment in this way can be obtained by ~~having~~ <sup>creating</sup> orgasms in each activity is the point at which great energy is given back to the ~~actor~~ actor.

This mans environment and day should be so designed as to make it most likely for him to have all of the following & separate orgasms at least once a day -

- a Sleep orgasm
- Eating orgasm
- ~~Drinking~~
- ~~Exercise~~
- Physical Movement Orgasm
- Intellectual Orgasm
- Emotional Love Orgasm (with or without Sex)
- And a Work or creation (design) Orgasm -

Since ~~there~~ over a period of several days there can be no complete transfer - i.e. an orgasm in one sphere will not fulfill a hunger or frustration in another - Each should be had every day - & they should be arranged in the most harmonious way. i.e. that which permits the maximum number of orgasms.

There are basically 3 areas of design  
in individual area - i.e. the  
individuals own body & mind - (the id)

The Social or institutional area - family  
corporation Society (The Ego)  
sup

Nature or the Universe Area - (Super ego)

The mastery of the first is a necessary  
prerequisite to the ~~the~~ sustained  
mastery of the second. But they  
all interact - insofar as the situation  
of the latter often sets the precondition  
for mastery of the former.

The orient teaches us most of the first  
Yoga is the highest design  
Socialism most of the Second - the highest  
and come future ~~the~~ system of design  
based on Science will be the key to  
the third.

In many cases these 3 areas of  
understanding discipline & control  
must be clearly articulated &  
explained from school on - They  
are not. Instead we take Gyn & Psycho

completely unrelated to any overall plan  
of self development & expression.

Remedy only when the new religion of  
Scientific Humanism really takes hold  
& is powerfully expressed through  
Communication Design

Each film you make should  
come like a beam of light to  
a man standing in the darkness -  
trembling-pledged, wondering if his  
next step will ~~drop~~ be over a  
cliff or on safe ground

When the industry makes films like  
this it will really have become a  
vital functioning part of  
society & will earn the enthusiastic  
support of an ~~appreciative~~ ~~public~~  
appreciative public.

Just as the dichotomy of body & mind  
matter and energy, determinism  
and freedom - are illusions so



is the dualism of inner and outer world an illusion. ~~They~~ They are both extensions of one reality. The most direct sensation of this unity is experience. Even after careful introspection we cannot say ~~the~~ ~~experience~~ where the experience lies. The ~~experience~~ <sup>composition</sup> of experience composed of images from the outer world and interests, values & feelings coming from the inner cannot be split & still be experience.

It interesting to speculate why living forms in general & man in particular were ~~not~~ evolved sensitive to given ranges of energy emission - Survival Value.

For example why don't we see infra red or ultra violet rays - Why can't we hear tones over 16,000 ~~Hz~~ cycles per second

Why don't we feel the pressure of radio waves on our skins -

Exercise not only has an important relation to eating - giving you a sharp appetite and powerful digestion

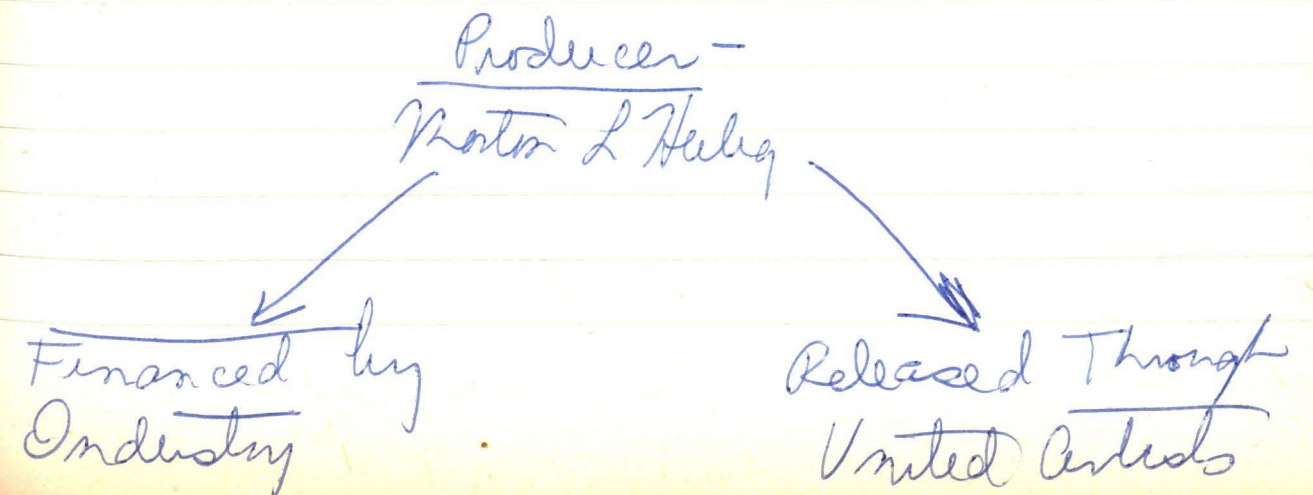
but is also tremendously related to your ability to get ~~refreshing~~ ~~refreshing~~ refreshing revitalizing sleep. A well exercised - physically expressed body - ~~will~~ can relax immediately and ~~after~~ <sup>after</sup> being fed drop <sup>of</sup> into sleep rewarding sleep.

"The ~~is~~ - Discovery of Exercise"

To Give Industry its - voice -

The industry to the people - through art Industry should finance the expression of its own philosophy & values - just as the church did - in ~~the~~ medieval & Renaissance times

The Idea.



Write up Flight  
Collect a Brochure of Pictures  
Prepare booklet -

a handbook of Motion Picture Financing

Estimate expenses of production

Capitalize film at \$100,000 which equals  
in shares of \$1000 each. 50% investment

Visit 10 leading companies & sell  
shares - on return for which they become  
part owners in film - with no  
artistic control -

They get the tremendous advertising & prestige  
& they obtain the right to obtain at  
cost a number of <sup>100,000</sup> copies of the film for  
internal non commercial use.

Release through United Artists -

If this scheme works you can do the  
same to all industries.

Energy - Automobile  
Steel & materials - Control

thus producing a film on a size & scope  
no one of them could <sup>afford</sup> or would want to  
finance & reaching a mass audience  
through a type of distribution no  
one of them could reach.

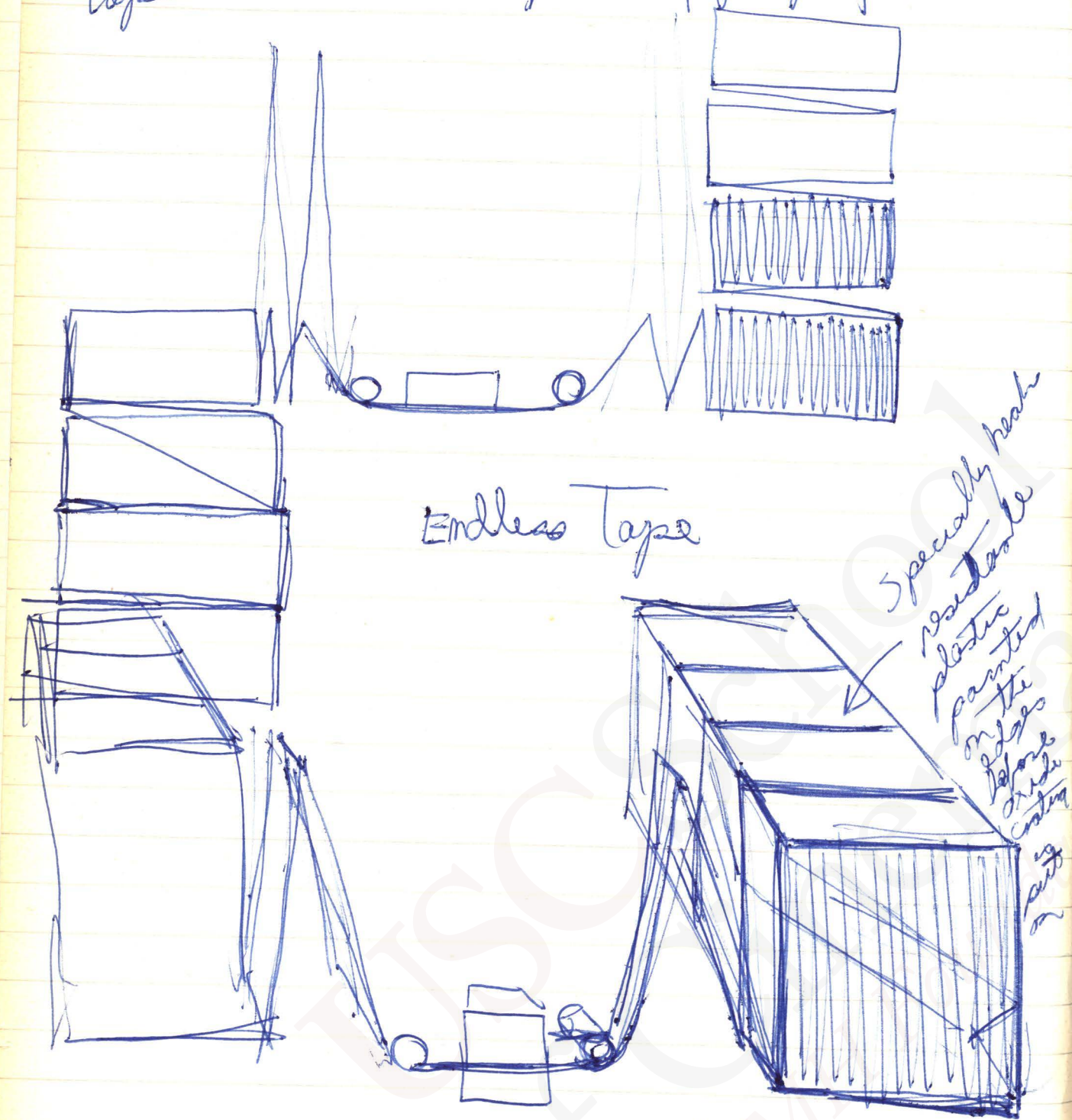
If the period of strenuous exercise ~~is~~ before  
lunch - (which creates an excellent appetite for  
the main lunch meal) makes one too tired for in  
the afternoon for ~~any~~ clear minded mental work  
then it should be switched to the evening -  
as a wonderful - relaxation from the nervous  
tension of the day & preparative for deep  
digested - relaxed sleep.

The exercise in the evening should definitely  
be part of a social experience -  
large groups of people - both sexes & all  
ages - swimming - games & dancing -  
(If every evening is too much - then every other)

But in reality - The best program - is  
- Mental stimulation - education - in the morning  
~~Mental~~ - Work in the (morning) & afternoon  
Exercise & Social Relaxation & Joy in the  
Evening  
Communication - Acquaintance  
~~the~~ clothing etc.



A compromise situation for long playing audio tape



Endless Tape

Specially made resistant plastic painted on the edges before oxide coating on both sides

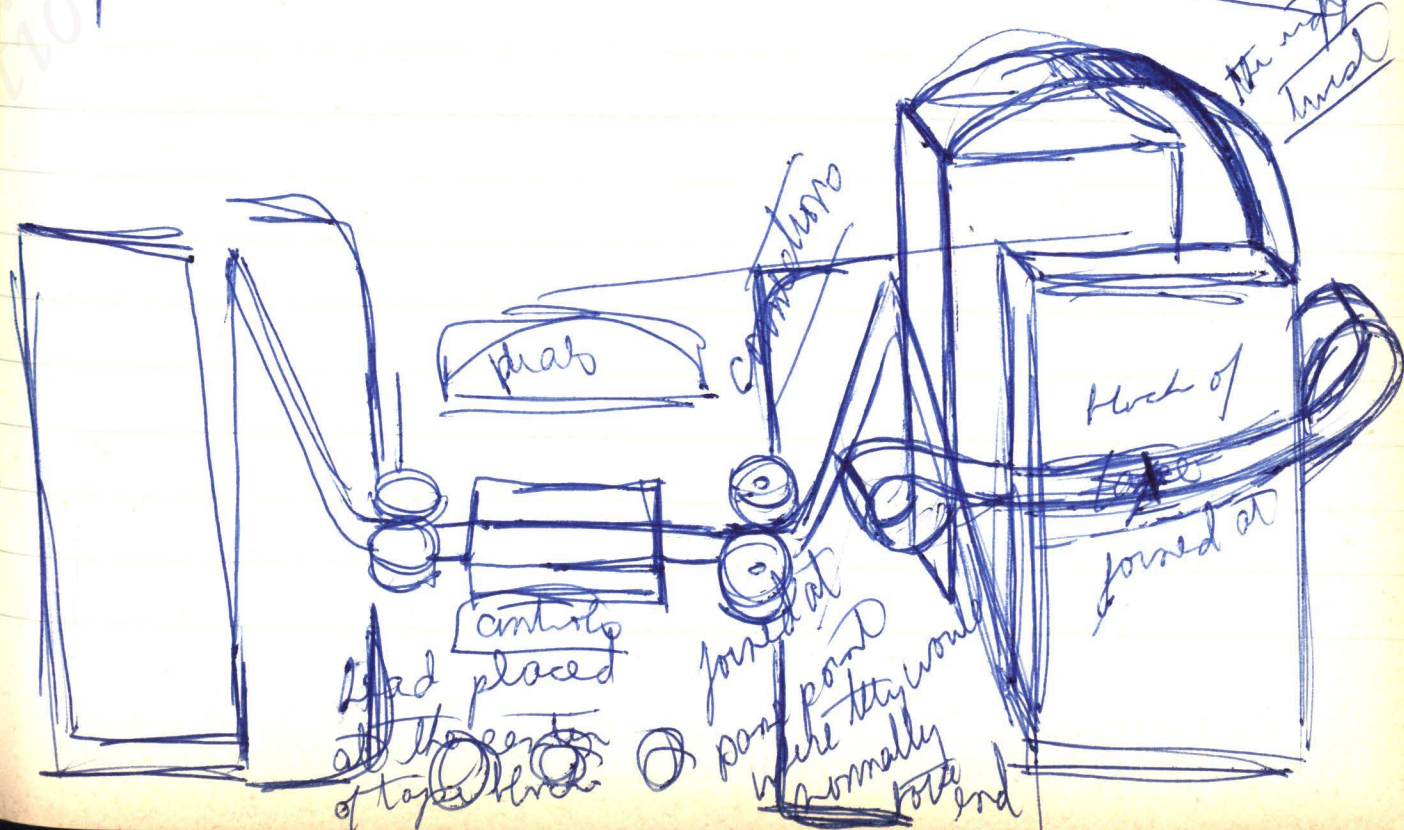
- advantages
- ① No reels required
  - ② Endless feed
  - ③ Endless take up
  - ④ Most economical use of space
  - ⑤ Don't have to rewind.



CONSOLE

Recorder Unit

sprocket driven with magnetic scanning beam

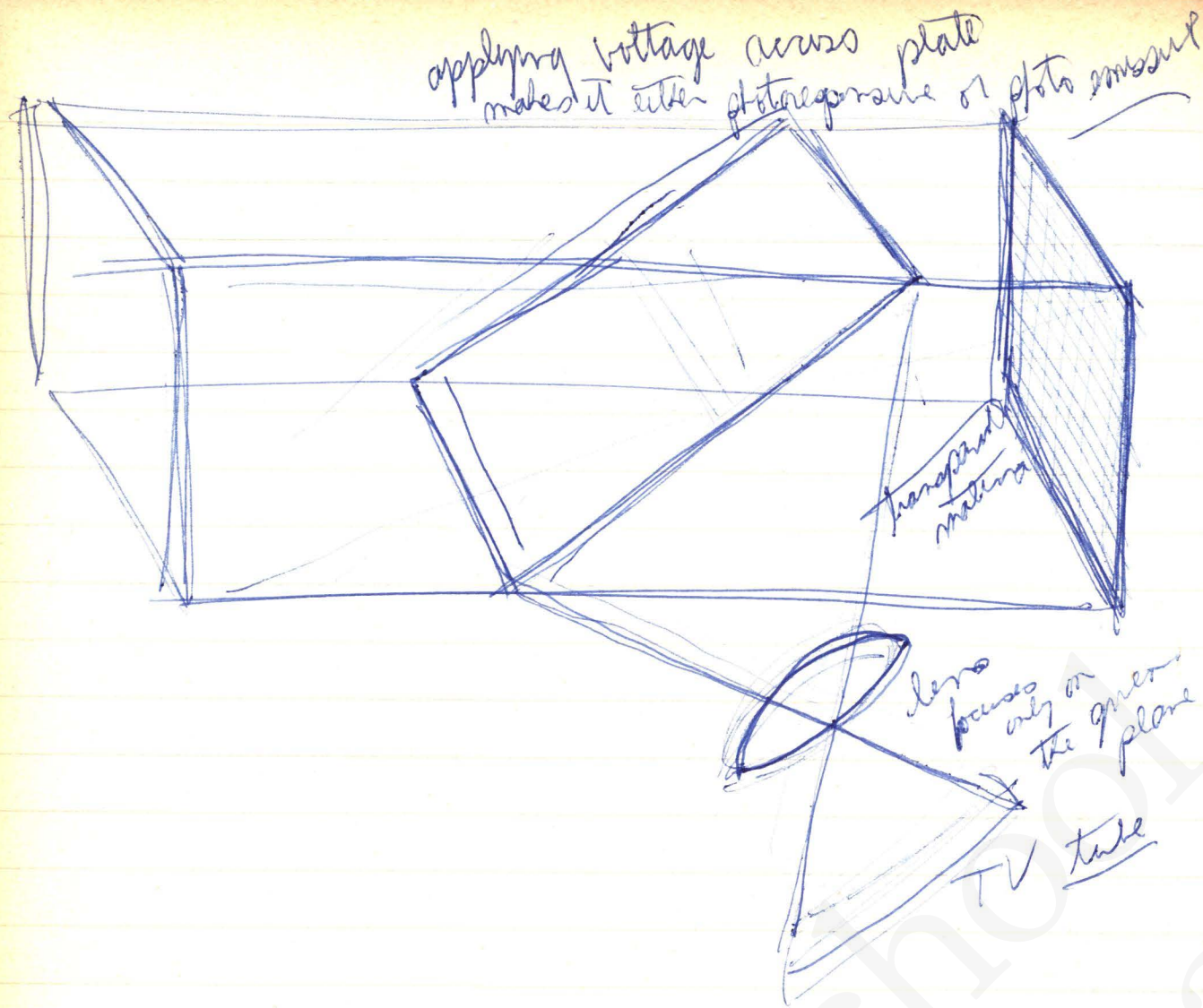


Head placed at the center of tape reel

sprocket joined at post point where the would normally be end

Hub of tape joined at

the way tunnel



When you take a new place to live  
make doubly sure it is

1. Quiet - day & Night
2. Near a good place to exercise - walk, run & swim -

These 2 are very important  
plus a good room of your own  
to work in - with study desk  
reading chair & good light  
for desk & bed.

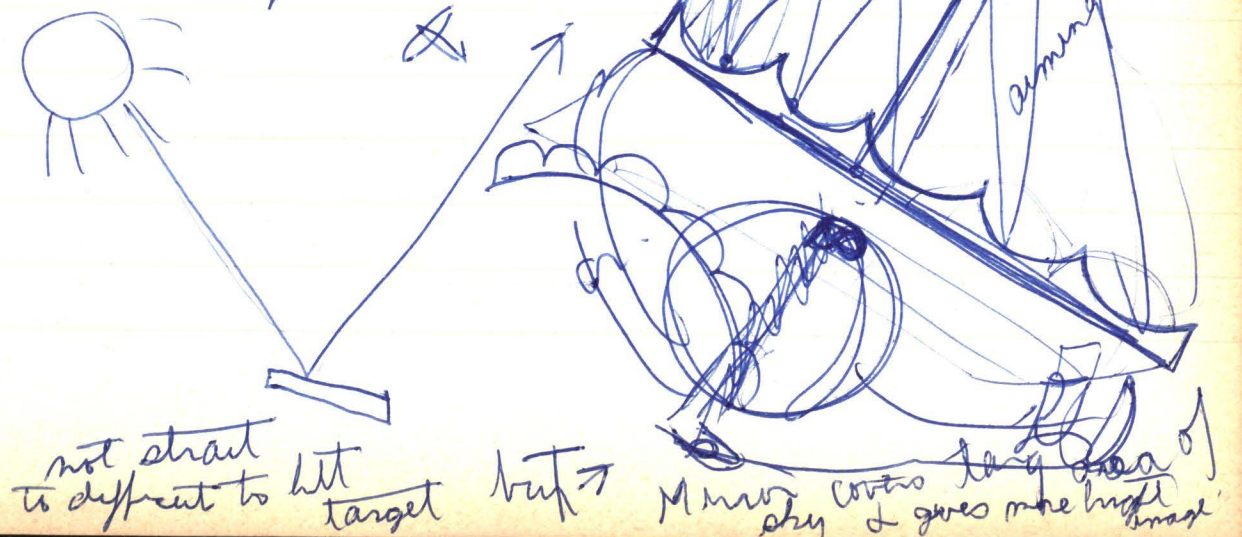
Dramatic  
Poetic

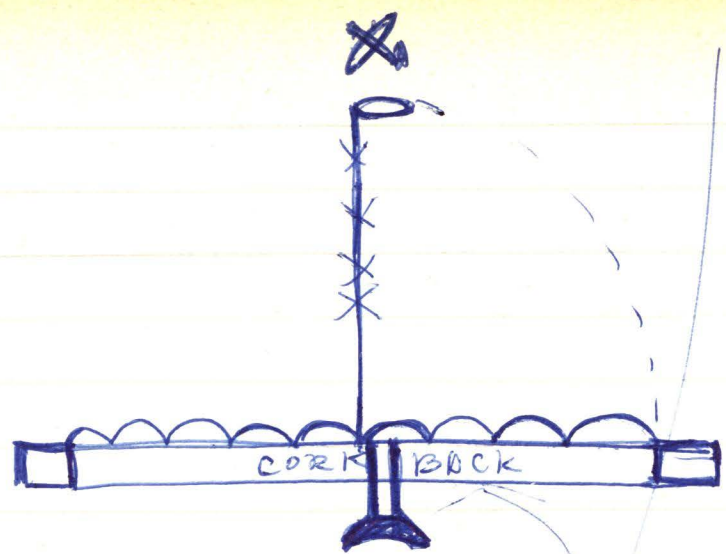
Documentaries - To make man understand  
the flesh & bones of his own  
Social body.

Efficiency → the goal & criteria of  
good design  
Efficiency in producing more human life  
energy - analyse - type  
quantity & or quality etc.

You must research all phases of  
cinema experience - just as the  
University of Michigan is doing for cars  
(Send your car design to the Safety Professor  
for evaluation)

Mirror Signal for downed airplane





aiming eye piece

radar reflection mirror

sphere covered mirrored surface

cork backing for strength & to float

aiming tube - with rubber eyepiece

non slip handle for easy one hand aiming

Rescue Mirror

Mirror - phosphorescent material that will glow at night

Note - Pursuit ship should have guns or sidevending missiles that fly backwards as well as forwards - to get <sup>sighting</sup> pilot locked on your tail

In the long run it will be much easier and cheaper to bring the mountain to Mohammed than vice versa -

For example via TV we can bring a football game to millions of people around the world obser then we can bring them physically to the game.

For a long time ~~ago~~ we have used telescopes to bring the information of the planets closer - while we never budged a foot off our planet.

Now man is about to start traveling physically through the universe -

But this trip will be hazardous & above all even if we achieve the fabulous speed of light - will take billions of years to reach the ~~most~~ distant galaxies.

In a way a ~~an~~ equal if not more fruitful line of research is the development of means to see, hear, & touch foreign planets without going there - By gathering the ~~info~~ information continually being projected by all things in the universe & feeding it appropriately to man -

an interesting development of this &  
for other uses to sense transference  
from one form of information deduct  
& project all the others.

For example - if the image shows a  
smooth surface - Tactile should register  
smooth even if no direct tactile  
measurement is made - or if  
~~tactile~~ aural gives sounds of explosion  
visual should conjure up images of  
an explosion etc.

Like the <sup>information</sup> transference of blind or  
deaf people - building up a total  
picture from one clue -

To return - we must find ways  
allowing radically new ideas of  
making <sup>print</sup> <sup>on</sup> Mars  
or hearing a <sup>water</sup> ~~fall~~ fall  
on a planet in a foreign galaxy -

This will require ~~fantastic~~ apparatus  
of fantastic - energy gathering dimensions  
(possibly the entire earth or zooming satellites)  
~~The~~ Supersensitive - local magnification

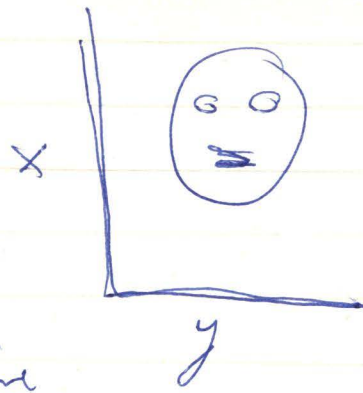
like the radio tube - & light magnifiers -  
and super accurate focusers - to eliminate  
local & foreign noise which destroys the clarity  
and contrast of the pattern.

Possibly all this will have to await a unified  
field theory - opening up a purely  
mathematical approach to imagery sound etc.

- a medium step will be the experience  
of foreign planets via Robots that we  
send to foreign planets & command  
from Earth

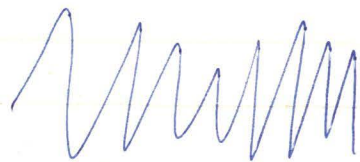
But the ultimate will be the ability  
of a man on Earth to walk over  
the surface of a planet in a foreign  
galaxy - examine it - ~~without~~ ~~seeing~~ ~~any~~  
a million years after the planet  
has vanished - hence no robot could  
walk on it - & we ~~could~~ ~~not~~ be here  
~~if~~ it arrived after a million year  
voyage. We must tune in on

the Universe. Like radio waves the  
messages are all around us waiting  
(like Mt Palomar) only for an instrument  
powerful & sensitive enough to  
pick it up & ~~analyze~~ digest it for absorption  
by man.



Math Formula

picture

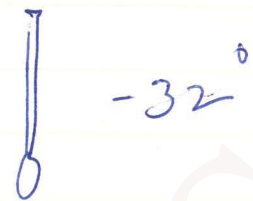


Sound

Smell

Touch

Temp



Math Formula -

The simplest most direct designation of information is a time place coordinate

Study & Work on all this - U.S.A

MIT or Cal Tech

A new series of either half hour or One hour films - called - "The Face of America" = <sup>propose to NBC</sup> <sub>financed by industries</sub>

Each film will be situated in a different ambient feature 2 or 3 personalities - go into the production the ~~major design~~ processes involved - the ~~current situation~~ problems the industry is facing - have a void cinematic style folk songs and natural sounds.

or each could be a dramatic story of one individual in his unique world.

- The port of New York
  - Businessmen in N.Y.
  - Puerto Rican in N.Y.
  - The Dammest District
  - The TV world
  - The Publishing world
  - The Advertising world
  - ~~The University~~ - The Art world
  - MIT - Research Lab - a young prof
  - Pittsburg - Coal Mining
  - Dairy Indiana - Stud
  - Detroit Cars
  - Chicago - Meat
  - ~~Los Angeles~~ - Fishermen
  - San Francisco
- LA - Angeles  
Electronics  
Movies

New Orleans  
the deep South - Cotton  
Tobacco  
Segregation

Michigan  
toilet  
Paper  
mills

a place  
a person  
a poem



The proper content for cinema is DESIGN  
~~the struggle to create~~ its lack  
its breakdown, ~~the~~ the struggle to create or a  
song of praise to one achieved -

~~The~~ Science is the advancing eyes & ears of  
cinema - enabling it to see further in  
~~the~~ Space & Time - but Science is  
not the subject of Cinema - only its source  
- the great theme of Cinema is Design  
(based or not based on Science)

The ultimate criteria of the proper balance  
between individual life and collective  
life is ultimately & inevitably its  
productive efficiency. ~~Substituted~~ and the  
increasing amount of physical & spiritual  
wealth created <sup>we know</sup> more efficient production  
is the surest path to human happiness)  
The individual completely isolated becomes  
sterile & important. The completely  
collectivized existence - ~~where~~ where crowd-life  
~~existence~~ never leaves the individual  
any time to concentrate, think, contemplate  
or play with nature - also in ~~at~~ the  
~~long~~ long day-long becomes sterile,  
dried up at its sources. What we  
need a ~~system~~ fluctuating cycle  
where the requirements of ~~individual~~ privacy  
& collectivity are catered to in the full

in alternating times & sitting - so that  
each period renders in full the values  
~~that~~ alone is capable of creating.

What becomes evident as soon as one sets  
out to ~~write a script for a film~~ is to  
prepare a film is the complete  
primitive and inadequacy of the  
research materials -  
For one thing there should be excellent libraries  
where all cultural materials relevant to  
the subject can be had immediately for the  
asking - for people -  
~~all films~~

Up to date books - & Poetry - Magazine  
Photos of Paintings & Sculpture <sup>articles</sup>  
Photos of the world in general  
Music - popular & Classical  
Copies of all films on the subject  
List of living experts who can be  
consulted.

This unfortunately does not exist at all.  
if it does - it is a long way from the center  
of film making who need to study this material  
most of all.

When and if I ever become a film producer I will (amongst other things) as part of ~~cultivate~~ <sup>my production program</sup> cultivate 2 things - ideas & people. The ideas I have listed and discussed at length elsewhere. As for the idea of cultivating people, I will look around the world each year - for the 10 most promising young film makers. I put my research facilities at their disposal and let them work for 6 months preparing a film script. On any idea they ~~wish~~ <sup>desire</sup> ~~to~~ ~~work~~ ~~on~~ ~~it~~ will be paid a salary sufficient to live in health & comfort. When the idea is prepared it will be presented and evaluated - not rejected, or ~~even~~ torn apart. Changes/Modification will be left strictly up to the young ~~artist~~ film artists. Then mature assistants of his own choosing will be placed at his side & under his command to help guide the young & inexperienced artist <sup>away</sup> from obvious technical faults.

This is the only way the film industry can discover real <sup>filmic</sup> talent - this is the only way original unorthodox ideas will ever see the light of day

This is one part of the pure research arm of the film industry which is completely missing today - & which it badly needs, to replenish ~~it~~ if it is to continually replenish its creative energies.

The industry must learn to take young enthusiastic people and give them a ~~chance~~ - not take <sup>fresh</sup> ~~any~~ ~~kind~~ ~~of~~ ~~pleasure~~ in merely placing obstacles in their path.

with the clear understanding that their idea will be realized no matter what so that there will no overhanging sense of futility or fear of veto - but instead and inspiring abiding sense of responsibility & realization

Only in this way will creative young talent escape the vicious cycle - of no experience - no work - no work - no experience - or the other of no money to prepare an idea

- no script - therefore no money - - or the more subtle one of needing to put down <sup>in words</sup> ~~concrete~~ <sup>concrete</sup> ideas which are impossible to express in words so you can get the money to ~~make~~ film the idea. ~~At this~~ We must break these <sup>inferior</sup> ~~inferior~~ ~~cycles~~ ~~once~~ ~~and~~ ~~for~~ ~~all~~!

A work of art is an aesthetic theory.  
 Based on (Emotional) facts - its is the most  
 strongest, most ~~complete~~ ~~most~~  
 most all encompassing simplest expression.

There may be two kinds of art - that which  
 concerns itself only with truth - analogous  
 to a scientific theory.  
 and that which concerns itself with  
 affecting man for a better life - analogous  
 to a perfect engineering design.

~~There~~ There is a difference but I think the  
 most complete film starts from and  
 builds to two.

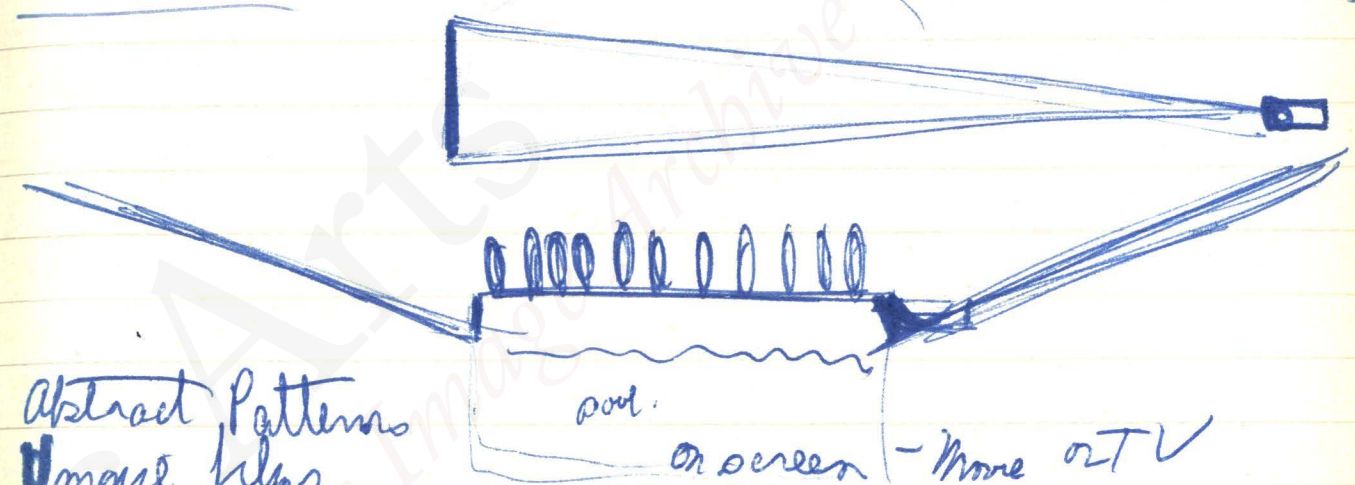
Making the cinema part of an overall  
 experience - social center will open  
 the way for serious informative  
 cinema in that the other activities  
 will be like the sugar coating on a  
 pill. People who eat sugar + dance  
 will be <sup>put</sup> in the mood for a serious  
 film - purely to round out the  
 evening to give it depth & true  
 sense of worthwhileness.

Visual ~~Buy~~ records - Record Build up combinations on  
 or Radio tape

The TV dance -  
Visual

Best Documentaries  
 or cut stock footage  
 or shoot original film to go with  
 or set - have copies of shows from NBC - CBS -  
 talk to Leo Vandrom

Dancehall

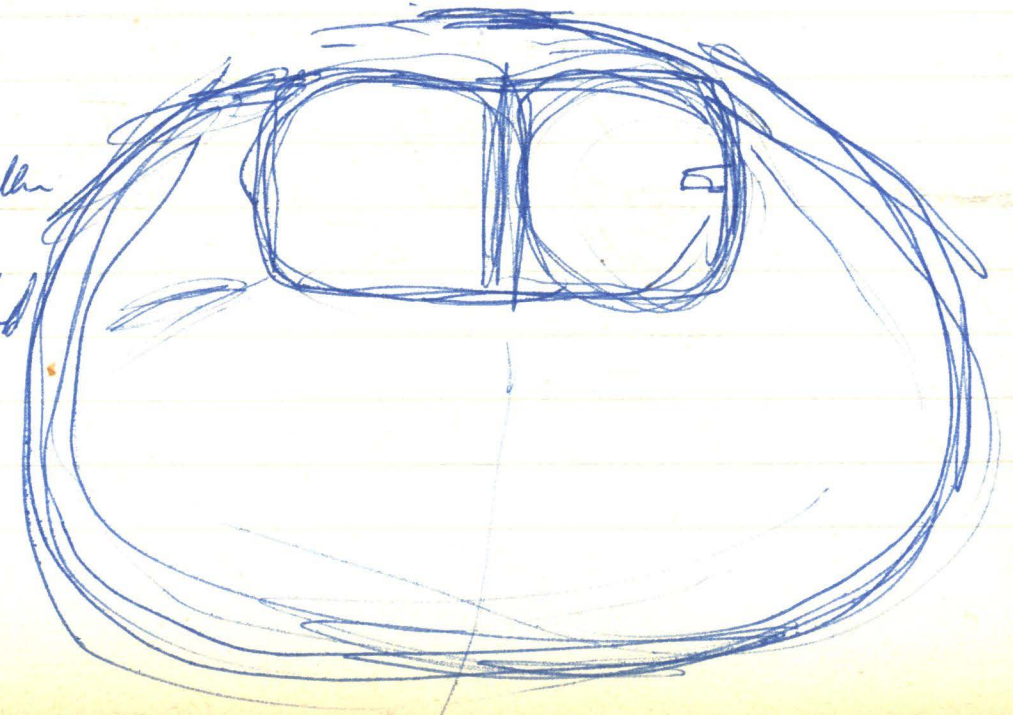


Abstract Patterns  
 Unique films  
 Kine TV  
 Live TV  
 Closed Circuit TV

pool:  
 on screen - None or TV  
 one screen with mirrors  
 two screens  
 three screens  
 Dome  
 Monitors  
 5 small  
 Table TV - with earphones

Food on side or  
 beneath

Food - ?  
 25 - Lockers Balloons  
 1 entrance  
 reasonable food



Funk -

- A program for Inner Space.

Type & circulate

- More detailed ideas on Flight -

Budget - Type out - Jerry

See Aviation People

- Prepare Odom & Cover for - Sensorama Chan

- Write Johnny -

Finkel —

A Program for Jimmy Space

type out & send

USC School  
of Cinematography  
The HMH Foundation

Send copies to

Hubert Humphrey

Fullbright

Morse - Stevenson

Lyndon Johnson -

David Sarnoff - NBC  
CBS

Ford Foundation - Hutchins

Nelson Rockefeller

Variety

## A Program For Common Space

It has become apparent to me that without similar -  
financial support ~~and~~ centralized integration -  
America will be unable to realize more than 1/10 of her potential  
in the equally important field of Human Communication

~~As we all hope - a shooting war doesn't occur - but~~  
~~mutually shift~~ - nations will compete not with arms - but  
with <sup>ideas</sup> - and will learn to guide themselves more in  
creative Brain Power - than in destructive force

~~of world contest shift~~  
<sup>as we all hope</sup>  
of world tensions resolves themselves more in a clash of ideas  
than clash of arms - and <sup>of</sup> the uncommitted nations turns  
towards the nation ~~which~~ which demonstrates more ~~creative~~  
~~constructive~~ more creative power rather than destructive force.  
The whole area of Brain Power & Human Communication  
will be of utmost importance to the strength & well being of the  
United States

But America's Human Communication program is as sadly  
undeveloped today as its Atomic Program was in 1939 and  
its missile program was in 1945

Although it not apparent we ~~are~~ have within our grasp  
the means of perfecting powerful new means of <sup>conveying</sup>  
expressing and communicating thought which are to conventional  
Arms & Television what Nuclear Energy is to Chemical Energy  
or Missiles are to airplanes. But ~~no private~~ But for lack  
of Federal <sup>financial</sup> support & organizational direction -

But no individual, corporation, or university has the capital or ~~breadth~~ <sup>the necessary</sup> breadth of concept to undertake ~~the costly~~ experimentation & development - that must precede any ~~commercially exploitable~~ <sup>commercially exploitable</sup> product.

As a result - notwithstanding our ~~present~~ <sup>current preeminence</sup> preeminence in the fields of cinema & television technique we may soon fall way behind Russia ~~and~~ Poland & Czechoslovakia all of which has set up large well financed institutes for ~~communication~~ <sup>human</sup> communications research - that I have visited.

### ~~An American Human Communications Institute -~~

The Federal Government must begin a program for Inner Space. The best way of ~~doing~~ <sup>starting</sup> this will be to create a Human Communications Research Institute that will coordinate the work of many important centers such as - that are attacking the communications problem from many different angles often completely unaware of each others efforts or discoveries - ② will carry on basic & applied research & develop advanced forms - ③ Will bring into ~~mutually~~ ~~integrating~~ contact - the artistic and technological who ~~until now still~~ ~~are~~ ~~work~~ ~~in~~ ~~their~~ ~~own~~ ~~islands~~ ~~apart~~ - Will close the ~~gaps~~ <sup>gaps</sup> between the artistic and technological halves of communication

④



will fulfill 3 functions that are badly needed  
by our Human Communications Industry

A) A research and development Center

B) An experimental production center

C) A school

in all fields - such as - physiology  
psychology, sociology, electronics  
optics, acoustics, chemistry, Economics  
architecture, engineering  
production, etc.

A) The research & development Center will ~~coordinate~~ <sup>maintain an information clearing house</sup> ~~international~~ evaluate all the work being done in the

① United States & abroad pertinent to the communications problem and publish a journal

② Carry on basic & applied research into communication problems

③ Develop <sup>advanced forms of communication</sup> ~~the most promising comm~~ machinery  
i.e. machinery that aids in the <sup>time of</sup> ~~organization~~ expression, distribution and consumption of ~~ideas~~ all psychic states - such as ideas or emotions

B) The Production Center will - ~~make~~ produce finished samples to serve as concrete <sup>sample</sup> ~~examples~~ of what can be done industry can do ~~of what can be done~~ if it desires  
For it is the very nature of psychic products that cannot be understood at all in the <sup>industry</sup> abstract but only by concrete example

c) a school which at least will give all <sup>young</sup> people who desire ~~to~~ a career in the communication arts a chance to prepare themselves as seriously and completely ~~as doctors~~ <sup>and</sup> ~~other~~ as doctors, engineers, - To obtain diplomas ~~that~~ ~~will automatically~~ of achievement that will ~~stand for~~ ~~solid~~ ~~stand~~ bear with its professional standing and a true sense of responsibility for the powers they exercise. The school will assist its graduates in getting placed in industry - and thus in one step leap over the insane obstacles of ~~feudalistic~~ ~~unions~~ and industry indifference - that prevent many <sup>extremely</sup> talented young people from ~~applying~~ <sup>giving what they have to give</sup> their skills to the industry a nation at large.

19  
Possibly  
in 1950 of all  
cinema & TV - Radio  
structural  
revenue

Advanced Human Communication will have tremendous repercussions in the fields of education, art, Religion, medicine, diplomacy, politics, War, ~~disruptive~~ <sup>disruptive</sup> travel - ~~as well as~~ <sup>as well as</sup> entertainment -

America cannot afford to wait any longer before initiating a <sup>rigorous</sup> ~~total~~ program for the ~~development~~ <sup>development</sup> and advancement of this field.

I have many ~~advanced~~ ideas, designs and inventions which illustrate the potential of this field that I will be glad to discuss with you

or impossible to get in the Union. The New York Camera Union  
union asks 1,000 initiation fee and ~~the~~ has taken in no new  
members in the last 10 years. What would our  
nation's medical profession be today if a doctors union  
arbitrarily exercised such a restrictive monopoly.

The Air Force has its Langley Field  
Museum - Cape Canaveral

Practically every country but the United States  
Many countries have responded to the need for the type of a  
institute

Space Medicine  
Electron Medicine

Canada has the Canadian Film Board  
England its Experimental Film Center  
France has its Institut des Hautes Etudes Cinematographiques  
Italy has an ~~Espresso~~ Centro Sperimentale di Cinema  
Poland - Czechoslovakia & Russia have large ~~of~~ Cinema &  
TV Research institutes.

It is incredible to believe that the U.S. with its giant  
film & TV industry has no such institute -- ~~to~~  
As a result we stumble along at only 25% our ~~national~~  
creative potential.

I propose the Federal government take the initiative  
in a bold new program for the exploration of outer  
space - a devote 1-to 5% of the revenues received from  
the entertainment taxes - to an industry wide  
~~Human~~ Communications Research Institute - that will at  
once serve as a clearing house & focal point for advanced  
for industrial <sup>or advanced ideas</sup> progress carry on a continuing program of research  
& development - ~~and train~~ and ~~train~~ professional train young people

for industry - giving them professional recognition & pride &  
help fund

USC School  
of Cinematography  
The HMH Foundation

They want a finished product - without either being willing or capable of bringing an idea to the operational stage

Where would our missile program or our aircraft industry be today if the govt didn't undertake development?

The exist ~~imp~~ centers of extremely important work such as

MIT Institute of Communication Sciences, <sup>Cleveland</sup> Transportation & Post of Psychological Phenomenon, David Saroff Research Center, Watt Swaney Studios, Acton Studios etc. were extremely

important work that could ~~have~~ ~~no~~ ~~more~~ ~~create~~ ~~provide~~ creative reactions whose work could have ~~extremely~~ <sup>potentially</sup> fertilizing impact on each other - but this ~~mutual~~ <sup>mutual</sup> interaction fails because they ~~are~~ <sup>are</sup> barely aware of operate as hermetically sealed units that are barely aware of each others existence.

~~Finally~~  
a centralized institute can ~~close the gap~~ take vigorous steps to put so called artistic activity on a ~~bas~~ <sup>bas</sup> multiplying more scientific bases - and then close the ~~existing~~ <sup>existing</sup> ~~substantial~~ <sup>substantial</sup> ~~disturbing~~ <sup>disturbing</sup> gap between - ~~or~~ <sup>or</sup> ~~elucidate~~ <sup>elucidate</sup> art & technology - artists & the engineers

~~The institute~~

Young people who aspire to a career in the arts of communication find a terrible series of obstacles in their path.

1. There are no schools of real <sup>technical</sup> ~~standing~~ & recognition
2. The schools do not offer deep studies ~~in~~ <sup>in</sup> all the disciplines that today <sup>have pointed to</sup> bear upon the problem of communication.
3. Poorly education - with no diploma or scholastic recognition they find it impossible to get a job - they get caught in the vicious cycle of no experience - no job - no experience
4. If by luck they find <sup>open</sup> ~~an~~ <sup>often</sup> ~~job~~ they cannot get it because they have no union card - when they apply to the union - they soon find out it is no right





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*560 Beach*

*1-14-19*

<i>at post office</i>	<i>122</i>
<i>Linear in time</i>	<i>33</i>
<i>Residual value</i>	<i>108</i>
<hr/>	
	<i>263</i>

*apply the strong tough grand  
hard knocks philosophy -*

*All this when male statistic  
people recognize the reality  
of power of ideas - power  
ideas can hold - purely as power  
Chemicals - Culture 15.9*

## Way of Design

5% of Industry plowed back  
<sup>investment of existing</sup>  
into Scientific Research  
& ~~over~~ new Scientific  
Research.

This creates the basis  
for sound communication  
~~in~~ Design

This creates need & justification  
for Communication University  
with recognized Degree - License

- Power into proportional  
responsibility -

Then removal of all obstacles  
such as unions - for qualified people  
to enter the industry



Program for Inner Space - <sup>(Antihuman)</sup> the Exploration and Cultivation of

In the the take about <sup>exploring</sup> considering the for ranges of ~~the outer~~ universe - we have completely lost sight of exploring and engineering the domains of inner space.

and this will be equal if not of greater importance <sup>not only</sup> in the struggle with Communism ~~to~~ which ultimately will be settled by which side can win more minds - but in the struggle for a fuller - more harmonious <sup>like free of</sup> ~~like~~ <sup>Racial, religious, & national</sup> ~~like~~ <sup>regime</sup>

The communists aware of this are giving <sup>great</sup> importance to research - this <sup>research</sup> institute at Lemgo and Crema Research Unit at Moscow - which the author has visited. Here the great advantage is the integrated approach

The govt should take the initiative & then call in private industry in ~~the~~ coordinating and pioneering the exploration and development of inner space

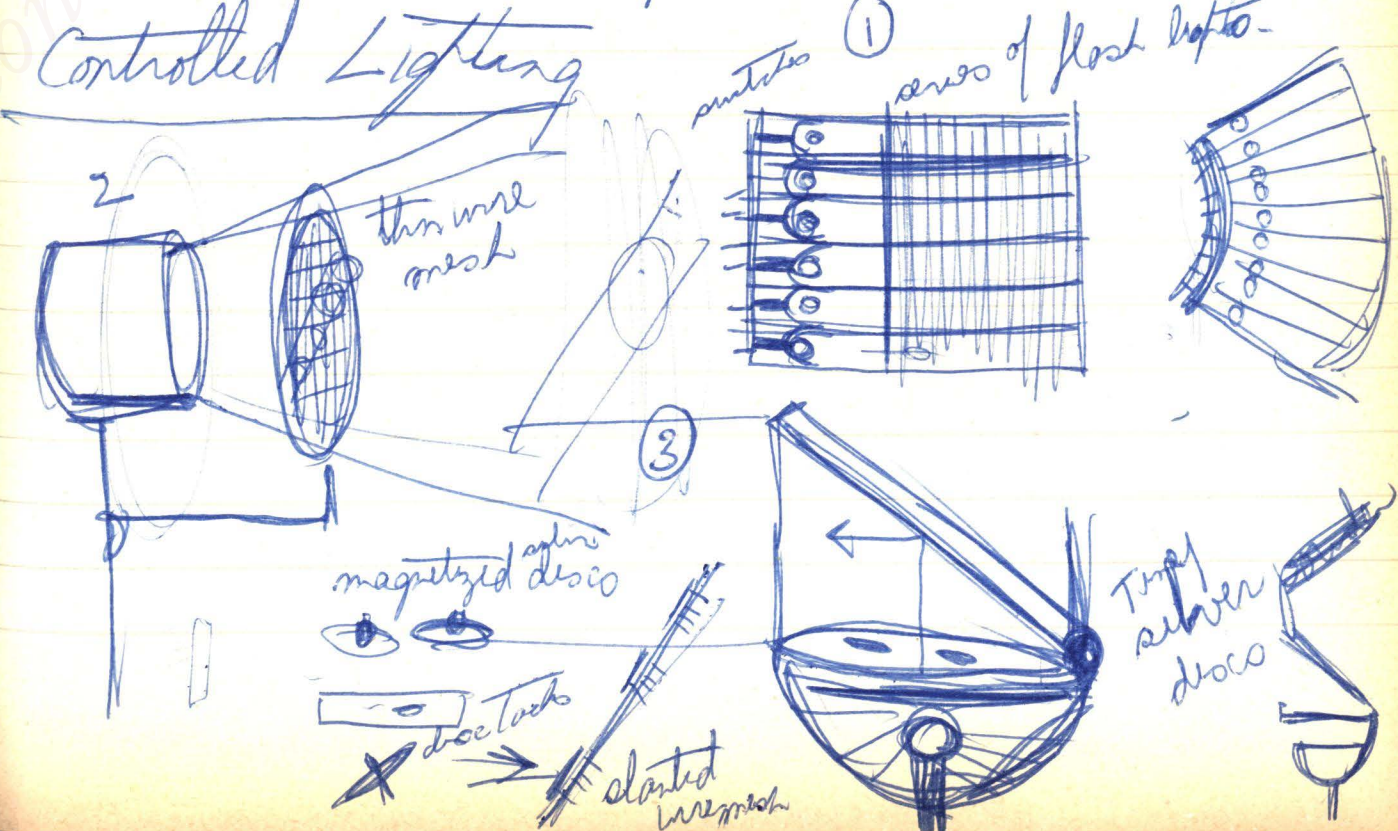
Who could be called in  
 What remains to be explored - Frontiers  
 Applications - fruitful development of all  
 the arts  
 Education, Medicine

Communication - Architecture  
 Not completely under the aegis of the Military  
 Publish & send to U.S. Dept.  
 especially Sydney Johnson

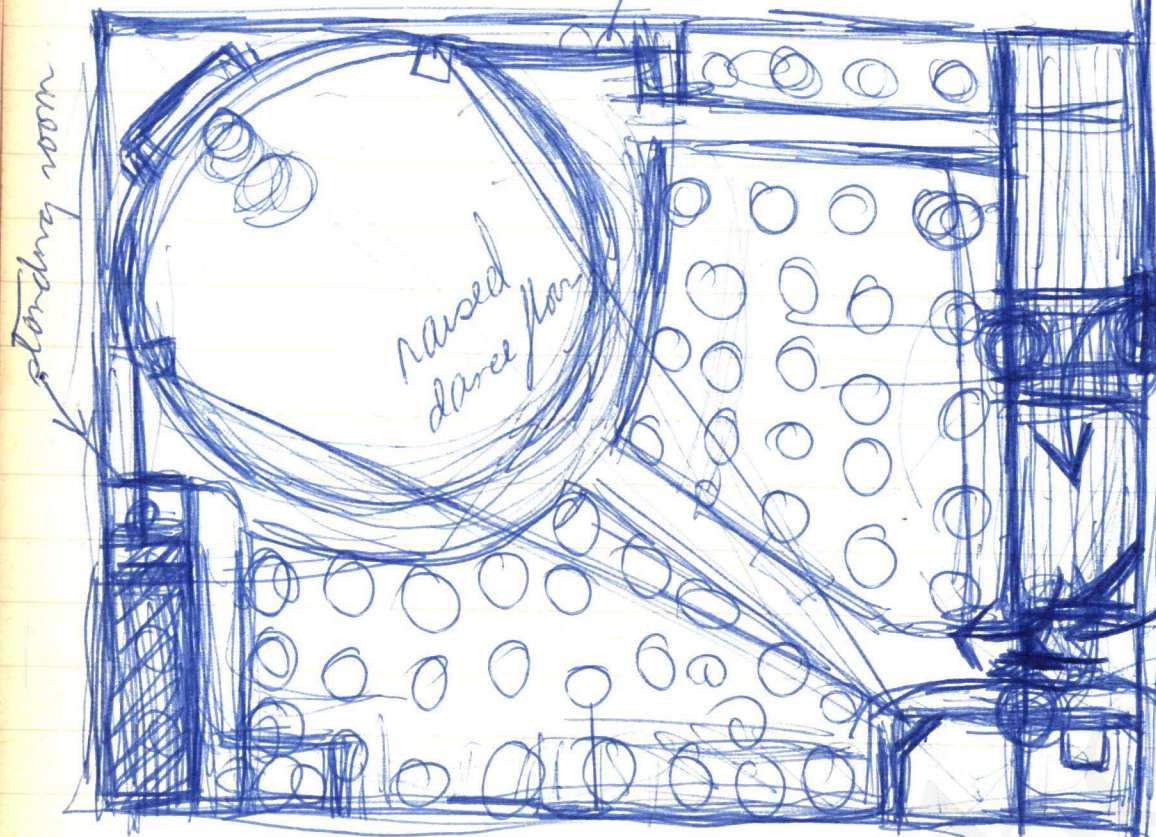
Supported by 1% of gross of all entertainment industries - findings be to them -  
 in exchange

Write up draft - Circulate to all Film societies & TV & Government

Get cooperation of - Dyn & MIT etc



~~The~~  
 Donorama - The Place standing room with  
mushched ledge to leave  
food & drink prices



25 cents  
 to sit  
 and look  
 gets ~~plush~~  
 50 cents  
 to get in  
 & dance  
 25 cents  
 per  
 drink  
 or beer  
 or small  
 sandwich

Use lecture ticket system - pay only on way out

Suggestions & requests on each table

If you get 300 people pass through back  
 night - at an average I figure you have -

Take in \$ 300 per night - or 300  
 \$ 2,100 per week  
 5 people - 100 = \$ 500 salaries  
 \$ 100 films records  
 420 for food

Food

10 20  
 2 88  
 Licenig  
 space Rentat

So ~~at~~  
 for \$ 1  
 a bud can  
 have -  
 a dance  
 a drink &  
 a sandwich  
 for \$ 2 have  
 a date

Initial capital expenses	25000 profit 5000 profit 20000 profit	15,000 profit Initial Expense
Slide projector	\$ 200	\$ 5,000
Color wheel	200	Intake 400 x 1 = 400
Movie sound projector	300	7
Tape recorder	300	2800
Amplifying system	300	16 weeks
Screens	200	4
	\$ 1500	16800
Food stands	\$ 500	2800
Tables & chairs	3,000	44800
Dance floor	1000	19,200 exp
Construction	1000	25600 profit
	7,000	Initial expense
		1200
		16
		7200
Maximum Expenses -	2100	Take 1200
	\$ 1400 per week	
	700 profit	19200
	12	week reason
	\$ 8400	

Completely self served - plastic cups for drinks  
 Paper wrapped sandwiches  
 Plastic lean plates

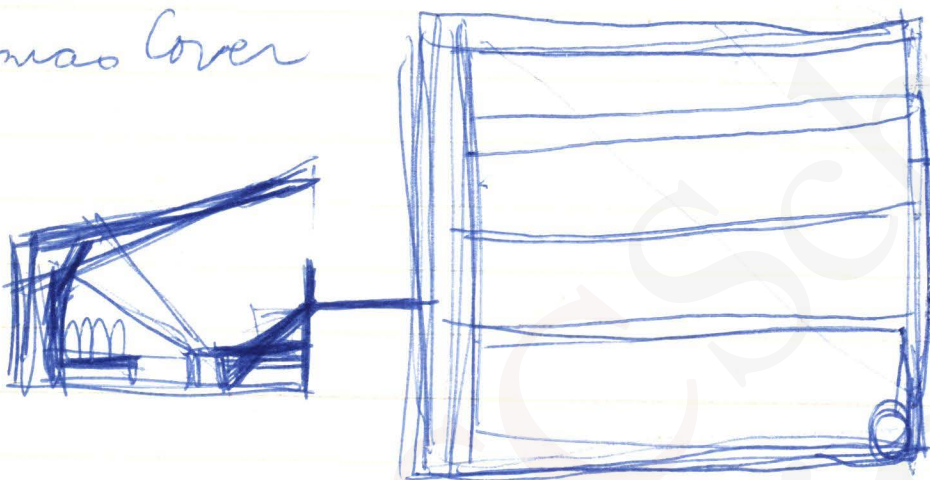
have waste receptacles around

Have payment completely on honor system -  
 Dunks?  
 Sandwiches?  
 Beers - P

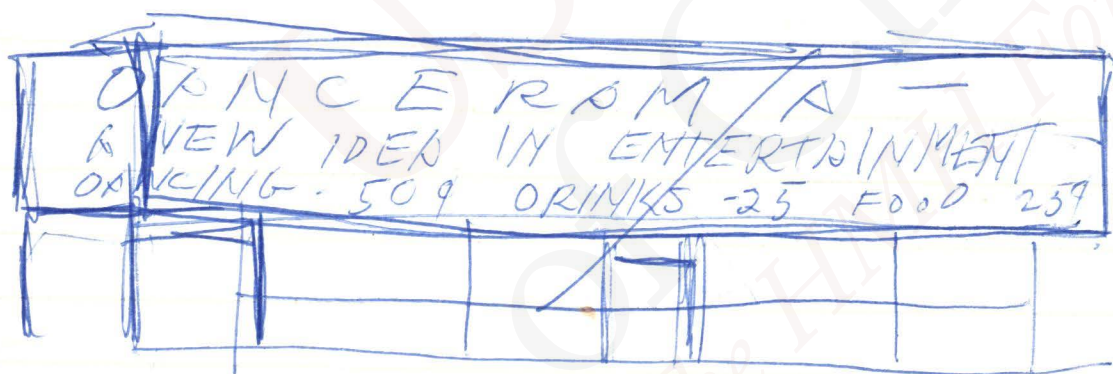


\$1.25 Thank you, sir

Canvas Cover



Pull out roof cover for rain protection



Which a ball - <sup>for \$1</sup> get two tickets - good for 2 drinks or sandwiches can be saved - but entrance always \$1 X

- approach book publisher - John Wiley with materials \$5,000 expenses - Travel about world - take photos, personalities, diagrams - point to the future

Post - art - Foto - Films - Present - AMAS - Disney - Future - electronic - MIT

- Ford Foundation + Life - Foto Magazine  
 American Geographer - Color **FOTOS** - Patent diagrams - people stories

Who published - Story of Invention

a) Filming

U.S. - New York - ~~Film~~ - ~~Foto~~  
 Flight  
 Man & Machine

- b) Senorana Chair
- c) Dance Hall -
- d) Book -

MORTON HEILIG  
FILM DESIGNER

In time of specialization and mass production it is foolish to think that a writer of film director can ~~create~~ <sup>draw</sup> only from his own personal store of ~~knowledge~~ <sup>experience</sup>. All he need do is draw from the experience of many people who have lived in the world he is investigating. This depth is combined with form - a combination lacking when a painter who has something to say says it plain - or a writer tries writing about a field in which he has no true understanding.

When a culture or idea design company decides to do a project it should have a library of recorded, filmed - opinions - experiences of ~~many~~ people catalogued. This will be the beginning of truly modern industrial manufacturing.

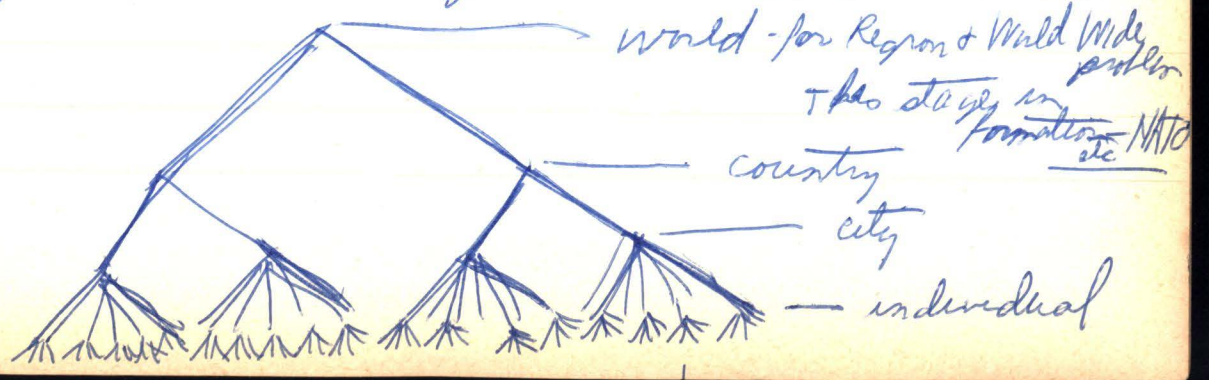
<sup>interesting</sup> - An important film - Patterns of Control

In biological Evolution - Microphotography -  
The Human Nervous system - Animation  
Automation - Electronic Control - Photography  
Social Organization - Primitive tribes, States  
Russia, Chinese Communism

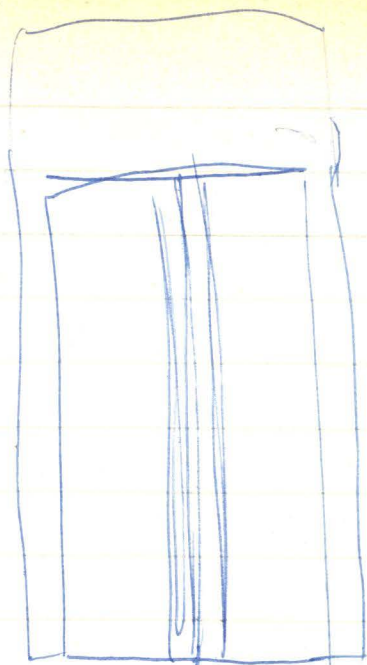
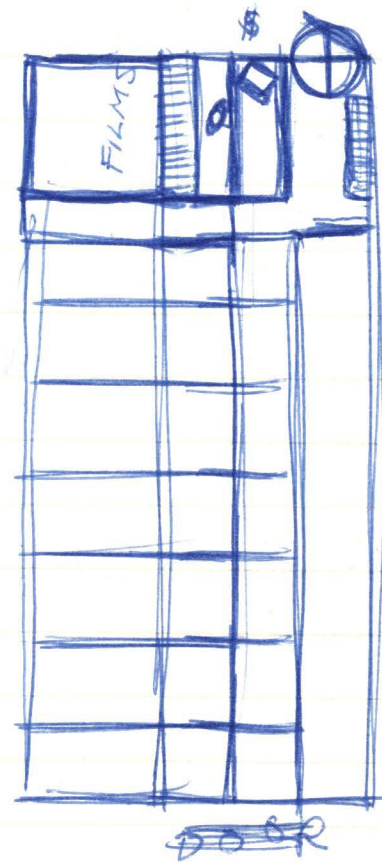
Financed by IBM - Voting Machine Co - RCA etc

The most efficient creative social organization will be the one that can absorb all the observations & sensations of reality experienced by all its <sup>research</sup> scientists, engineers - common people & instruments - direct this information to where it can be most constructively utilized - Synthesize decisions that embrace all the information & send commands that activate every organ of action available - every brain, arm, & machine.

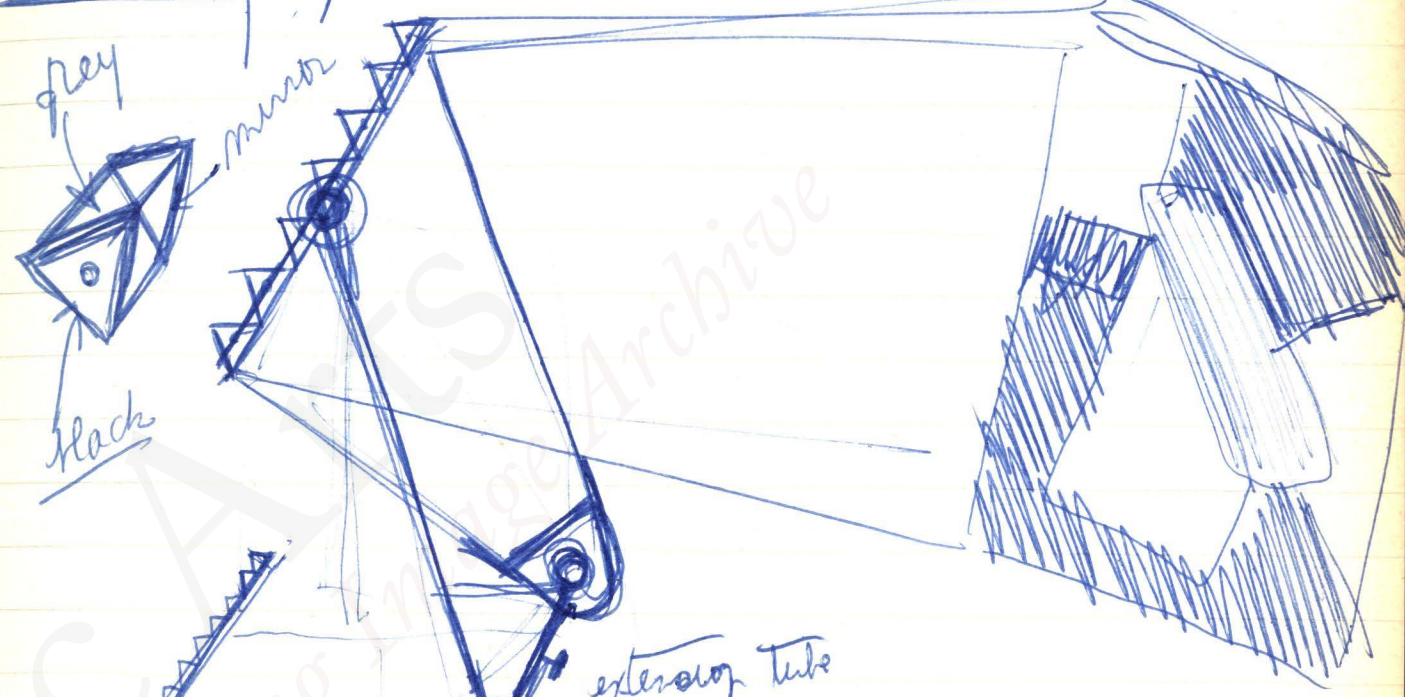
The important thing is understand the different levels upon which intelligent decisions can be made



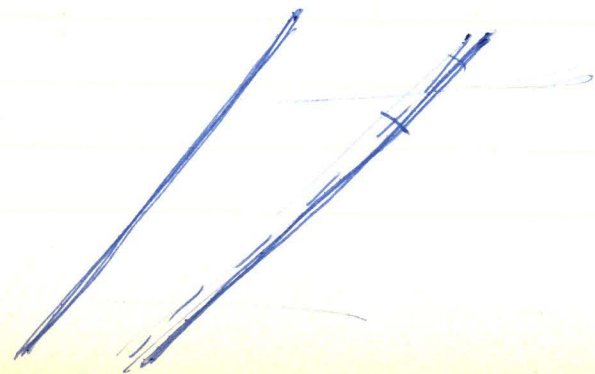
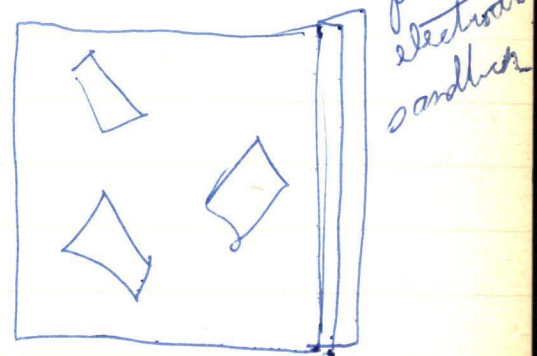
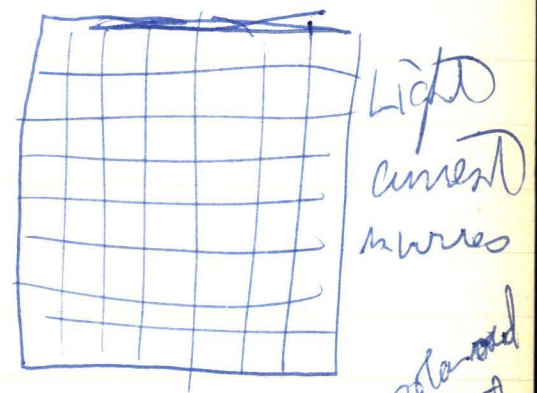
# KINE TAENTER

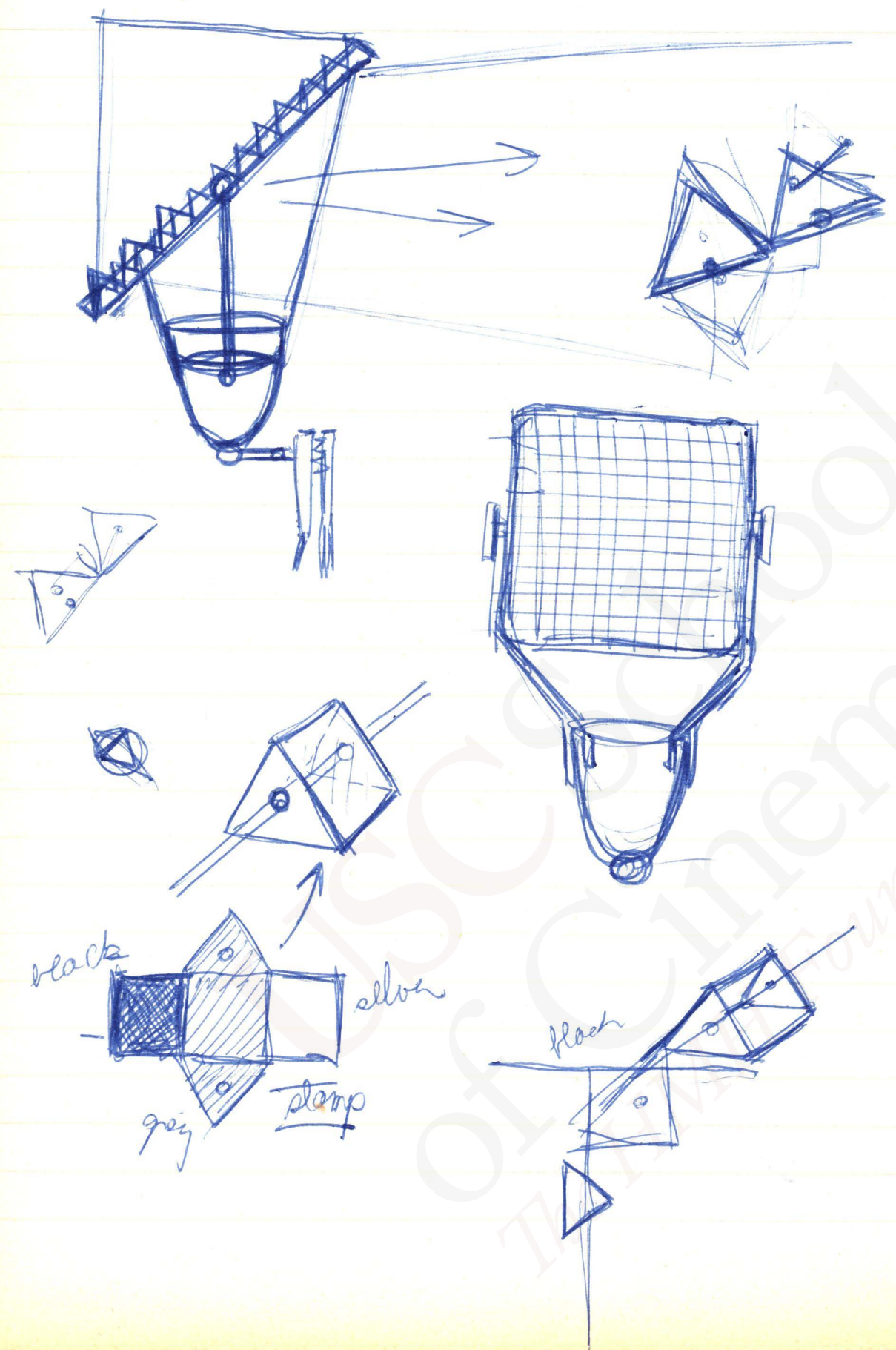


Controlling light



turn up voltage





Work These Up - Copy right & present to the agencies the <sup>Networks</sup> & Companies

A - TV series on "Your Health" <sup>air Pollution Toxins</sup>  
 how does  
 People are interested  
 Food - Exercise - Rest - Mind -  
 Clothing - Environment - Sex  
 Social interaction etc.

A - TV series - "Know Thyself" Lets Know Ourselves

Flight - Up	TV Series B+W -	One Big Cinema scope film
Man & Machine	Our power - done	Up -
The Story of Organization	Adventures in Design	Organization
The Species that Outbred itself	Your Health	Health
	Man & Machine	The Machine
	Know Thyself	The Egotists
	Designing Tomorrow	Tomorrow

1. Write up.
2. Register
3. Present -

Write up briefly & proposals -  
 a new kind of ↓  
 Philosophical Cinema  
 (Intellectual - Emotional Cinema)  
 The people hunger for it if beautifully presented

Networks - ~~Film Companies~~  
 Ad Agencies  
 The interested Companies themselves

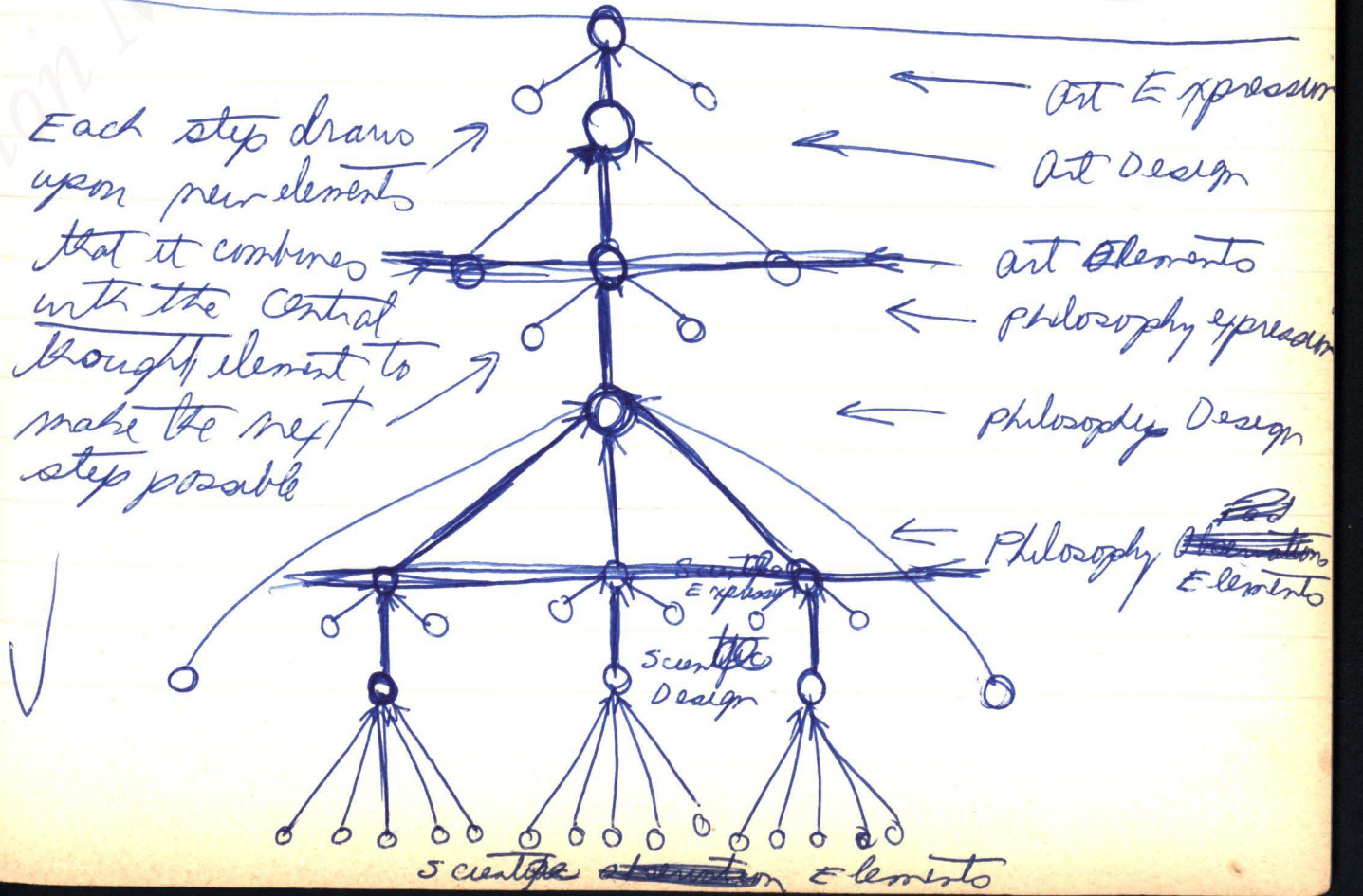
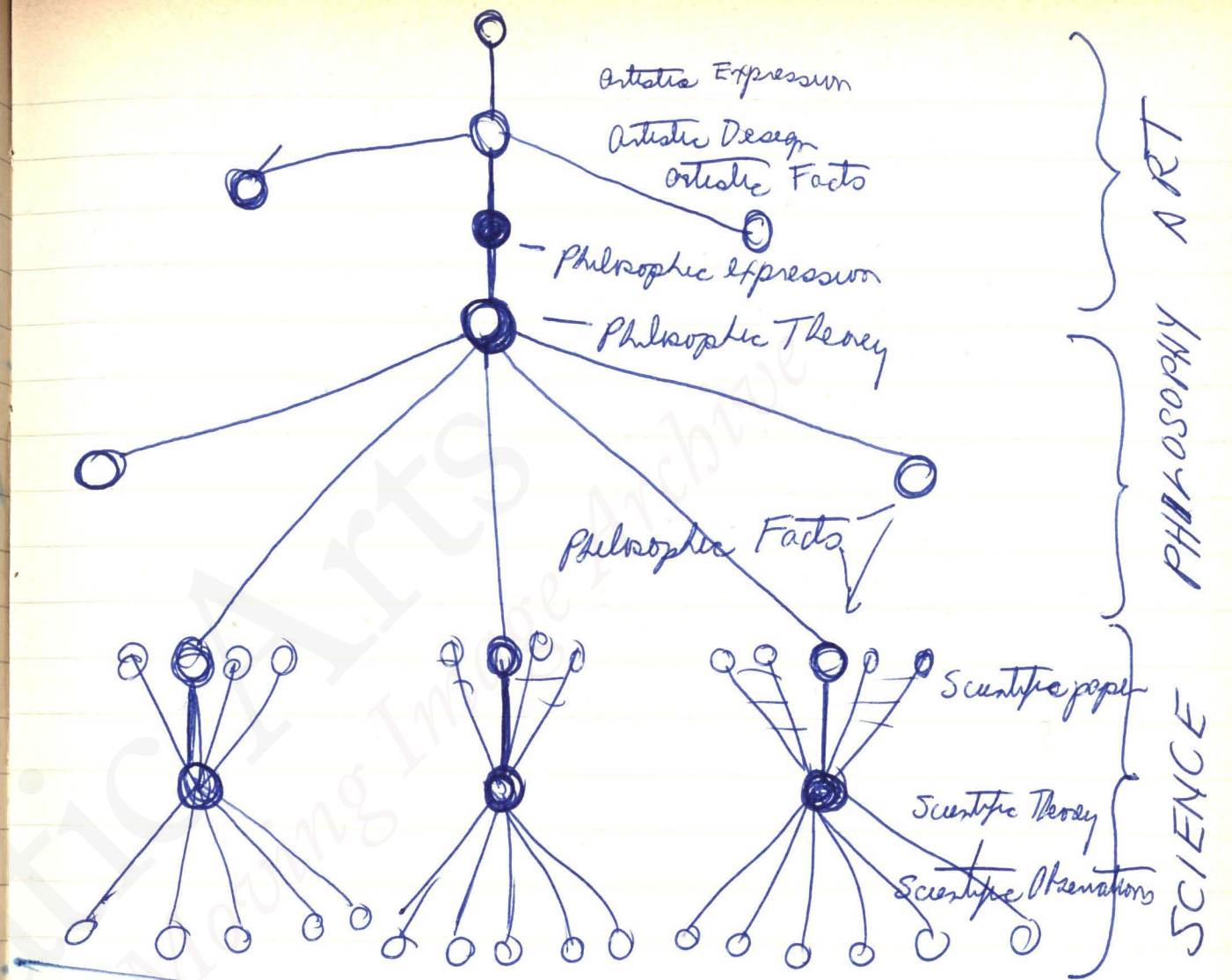
It is interesting to explore the basic difference between the scientist and the artist.

First of all I don't think there is so great a difference in personality type or cast of mind as is assumed.

Both require - a cultivated mind, imagination, discipline and a <sup>preoccupation with</sup> concern for uncommon ideas.

Both ~~of~~ exist in the perception of reality in so far as they the eyes & voice of reality but possibly one key difference is that Science observes - both man & the universe around him whereas - the art of communication to humans talks only to humans - (whereas the art of communication to other ~~states~~ worlds can effect the universe as well).

Basically art is the act of doing - of synthesizing a broad base of facts into one design (philosophy) and executing the design. Science cannot ~~and~~ do anything - only the Engineering arts can build the rocket & send it to the moon.



If you follow this scheme there will never  
be any confusion between Science & art  
and the differences will become less - when  
Science finds more direct expression  
in industry & art - to affect our bodies  
& minds & when "Art" in turn  
goes more & more to scientific method  
to mould both its form & its  
content.

Science can see things but it is the  
philosopher integrates them - ~~that~~ saying  
up the situation but mostly the artist  
is concerned with the problem of motivating  
human ~~to face~~ <sup>will avoid</sup> that they  
~~ambulation~~ <sup>ambulation</sup> and extend the  
sphere of their life energies. That is  
the artist is always most directly  
concerned about human behavior and  
this is why he is the least tolerated  
by politicians whose ambition is to ~~control~~ <sup>also</sup>  
direct human behavior.

Ideally the artist ~~is the~~ <sup>physical</sup> of political power  
and the artist of <sup>psychological</sup> power  
should work hand in hand - as engineers  
and stylists of automobiles - in a sort of creative  
compromise - but very often one seeks to  
dominate all - all for security ~~all for~~ of the  
state or all for the mental freedom & variety.

The best situation is a ~~creative~~ <sup>creative</sup> ~~compromise~~  
compromise which yields a stable yet growing  
(~~flexible~~) <sup>flexible</sup> society - DYNAMIC - EQUILIBRIUM  
internally strong - yet (artists) (Politics)  
flexible -

It is all a question of proportion & design in time  
& place -

a film called - "The Fifth Element" - Love

Making visually clear - the importance &  
reality of Love. The Basic <sup>Law of</sup> ~~Law of~~ Draventy  
~~Law of the Human~~ in the world of the  
Human Mind.

What must above all be made clear is  
that love is not a romantic ideal &  
but a basic necessity of life.

just as  
That ~~the~~ <sup>just as</sup> chemistry of the human body  
needs water to replenish itself - because  
the human body is water & has evolved  
out of an ocean of water

So the structure of the human personality  
requires - to receive & give love - because it  
is made <sup>out</sup> of love & has evolved out of an ocean of love.





one of them at the wrong time or place is no longer an expression of love but of ~~the~~ <sup>un</sup>love.  
For example - when she is tired & sleeps the only form of love that she wants - when hungry - food - after her physical needs are cared for she wants - physiological adventure - ~~to~~ for by by - a walk outside the house - Then she wants direct human contact with other babies or adults.  
Every act must be done with affection & gentleness & humor - but ~~each~~ the substance of each must be right for the time.

In the world of tomorrow - human beings must have ability to love each other as a Steppy love Leslie. They can provide the sleep by construction & security - Food by work - ~~and~~ BY-BY by walk walk travel and direct communication through electronic media of communication -

~~When through the sex~~  
When each man can express his love for every other <sup>man</sup> through ~~work~~ ~~the judge~~ work & communication - mankind will have taken a giant step towards real inner happiness.

On expressing ideas in films - you could do the -  
① Magazine or Newspaper Series - <sup>Stories &</sup> Documentaries  
Fiction & Non Fiction for TV  
② The Non Fiction Book - Feature Documentaries  
③ The Novel - Feature dramatic film  
I am most interested in form No. 2 <sup>including</sup> ~~with~~ <sup>with</sup> elements of No 3

In the production of films & books we must design an architectural harmony - just as we are doing with ~~the~~ the buildings of our new cities. The mind craves harmony as much as the body.

Human Engineering is on the verge of raising human <sup>physical & mental</sup> productivity - from the 10% <sup>of potential</sup> where it is now to a 98% where it should be. !!!

asthetic Form

I ~~received~~ ~~was~~ received a tremendously inspiring vision from one spot in the coming attractions of "Perry" a fantasy of nature by Walt Disney. where real life photographs were combined with animation - I don't know if he realized the potential of this.

It means that a very beautiful free & poetic cinematic form can be involved by - fusing - abstractly styled photography with realistically styled animation - no one poetic abstraction.

This can be done on all subjects - animal, machines & above all men -

Because - no animation can achieve the credibility & the detail of photography - and no photographed - set - the credibility or freedom of animation.

These are all experiments in Aesthetic form - which the Institute of Aesthetic Communication must carry out.

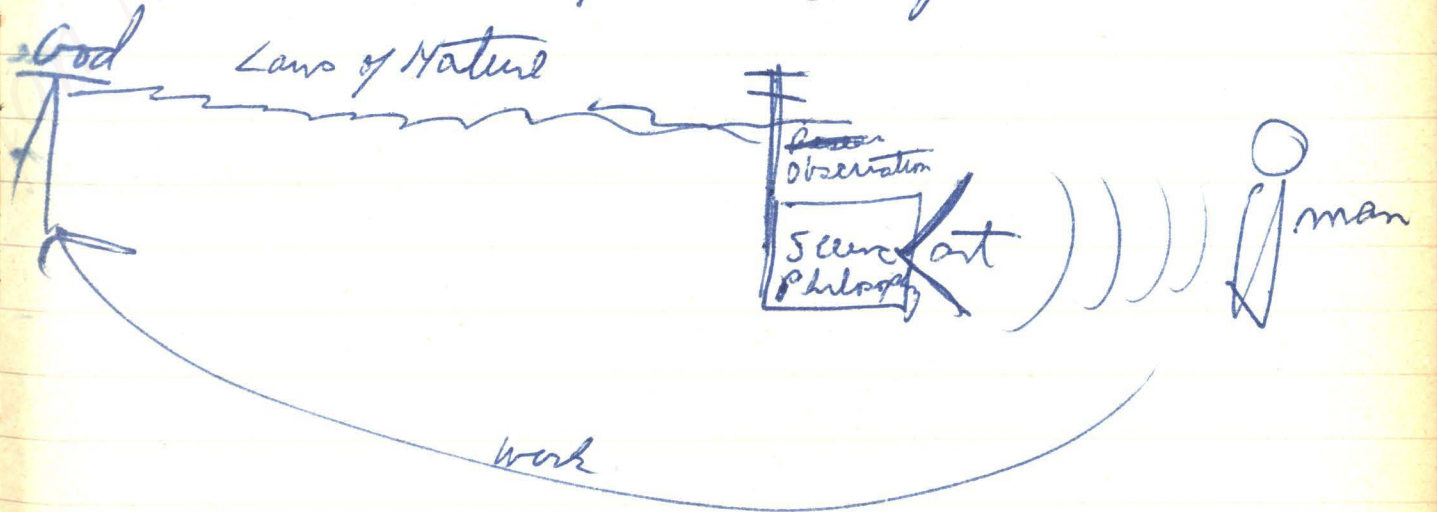
Can apply this technique - very well in ~~the type~~ "2 years of Life" a "The Beginning"

To invent a machine connects the mind of man to the mind of God. - ~~The~~ ~~External~~ The forms inside man to the forms outside of man -

Both to receive from the outside & react back upon it

In this sense - The laws of nature are like unseen broadcasts in the air -

Telescopes & Microscopes are like antennas that sense the vibrations - Science is like the electronic circuits of the radio - and art is like the radio loud speaker - which converts the ~~physical impulses~~ <sup>patterns</sup> determined by science into forms that are comprehensible to human nervous system.



For the Way of Design

From a design point of view it is as absurd for people to call themselves capitalists or socialists as it is to call themselves - propeller men or jet men.

First of all we are all men - men who believe one pattern is better for the solution of a given problem than another.

The superiority of one pattern over another can only be determined by objective testing and comparison by a group of objective specialists whose prime loyalty is not to prop or jets - but to the object - fastest - most economical ~~form~~ of transportation. In the process of study & testing prop men have become jet men - ~~not~~ without flooded & without being accused of opportunism or being traitors.

Today ~~men~~ men are monarchists, fascists, democrats, republicans, socialists, communists etc. I find all this absurd.

We are men - who ~~are not~~ are not ~~the~~ the least bit qualified to pass intelligent informed judgement on the best design for efficiently organizing

~~our~~ already our tremendously complex societies -

The best design for administering society should be determined by groups of qualified experts

- & subject to objective testing - None of these experts should be capitalists or communists - but Humanists - dedicated to ~~the cause~~

~~continually evolving problems of finding the~~ form of social organization which gives all of humanity the greatest amount of creative energy - and ~~releasing~~ releasing all of humanity's creative energy

The fetish of ideas & revolutions - (after which all ~~is~~ will be paradise) ~~abstracts~~ illudes many into thinking of ideal solutions - final answers - whereas in reality the process is a never ending evolution - because each achievement automatically creates ~~the~~ the basis for ~~future~~ further achievements and so on ad infinitum. We must learn ~~to~~ to accept & look forward to new social designs as we accept & look forward for new designs in automobile airplanes & architecture. This the way out of our ~~current~~ <sup>current</sup> ~~impose~~ <sup>impose</sup> the way of our ~~evolution~~ <sup>evolution</sup>

a Design society will be truly democratic  
- not ~~by~~ through the almost  
facial ~~part~~ act of pulling a lever once  
a year to elect a candidate whose  
profile appeals - but through a  
true ideational contact between the  
individual and ~~his~~ the greater organization  
of his society.

I.E. it will be a creative  
democracy in which ~~the~~ any  
apparatus will be set up by which  
the individual can inform the general  
body of all his physical & spiritual needs  
~~(pleasures) - and in return~~ criticize  
what society gives him in return  
& give to society all of his ideas on  
how things ought to be done in any &  
every field.

- at first this contact can be  
a human being - ~~data~~, a priest  
psychiatrist - both roles rolled into  
one - but eventually to make it more efficient  
it should be formed electronically led to  
computers - who will speedily & objectively  
classify - tabulate & ~~also~~ evaluate the  
information. They will be the real beginning  
of a truly organic society & a creative <sup>with highly developed</sup> democracy <sub>from family</sub>.

