Cybernetics Subinnimit

On Natasin,
Cultural Evolution,
and Human-AI Co-Dancing

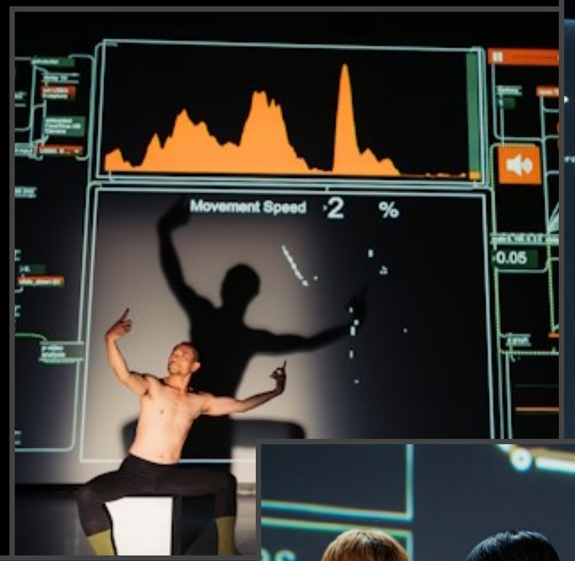
mit media lab

Pichet Klunchun Dance Company

creators garten

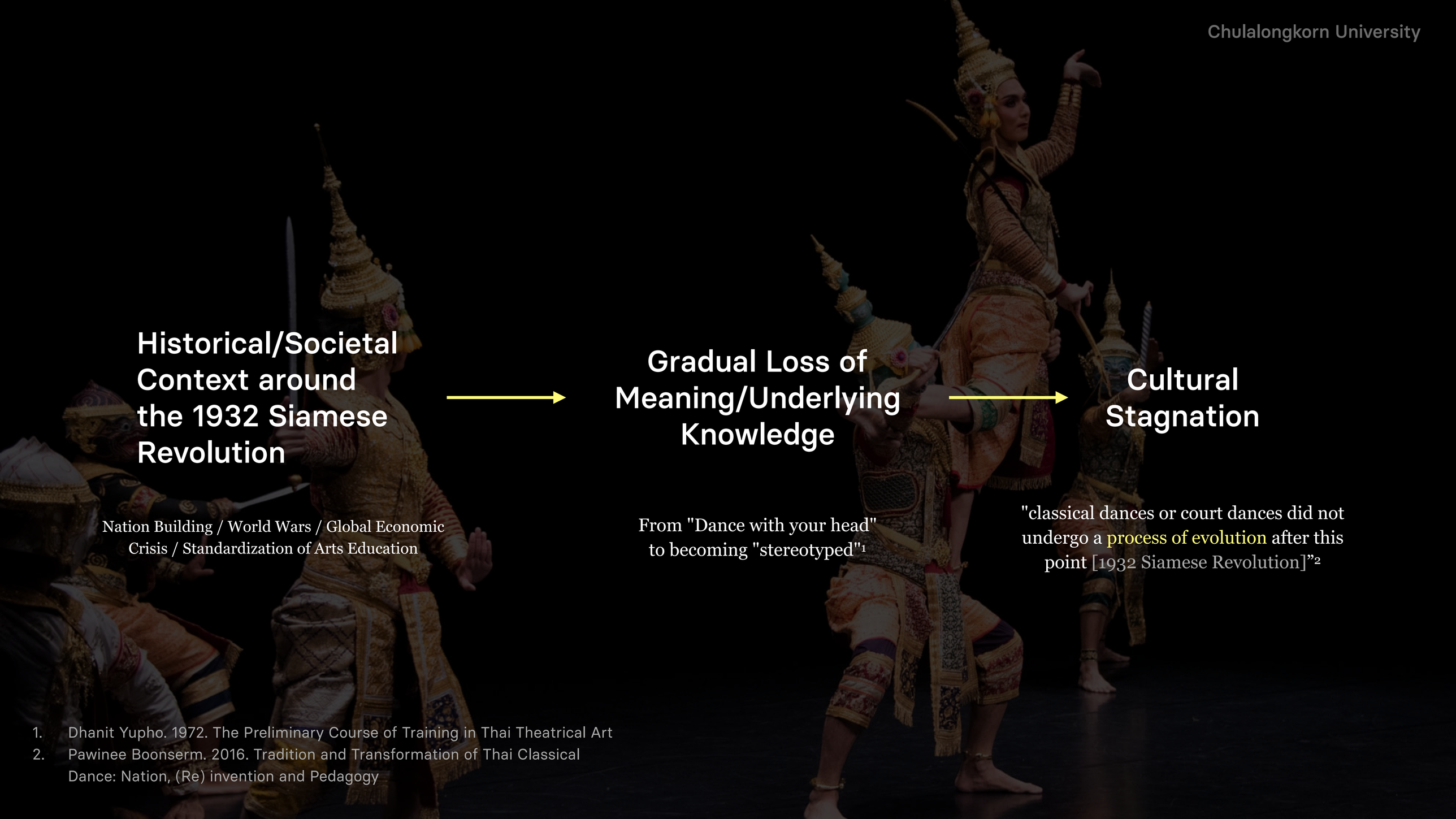
BIPAM2025 · 13 March 2025

Cyber Subin by Pichet Klunchun Dance Company



Chulalongkorn University

นาฏศิลป์ (Natasin)
Traditional Thai Dance



Historical/Societal Context around the 1932 Siamese Revolution

Nation Building / World Wars / Global Economic Crisis / Standardization of Arts Education

Gradual Loss of Meaning/Underlying Knowledge

From "Dance with your head" to becoming "stereotyped"[1]

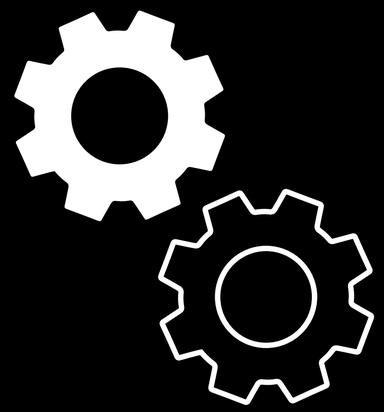
Cultural Stagnation

"classical dances or court dances did not undergo a process of evolution after this point [1932 Siamese Revolution]"[2]

1. Dhanit Yupho. 1972. The Preliminary Course of Training in Thai Theatrical Art
2. Pawinee Boonserm. 2016. Tradition and Transformation of Thai Classical Dance: Nation, (Re) invention and Pedagogy

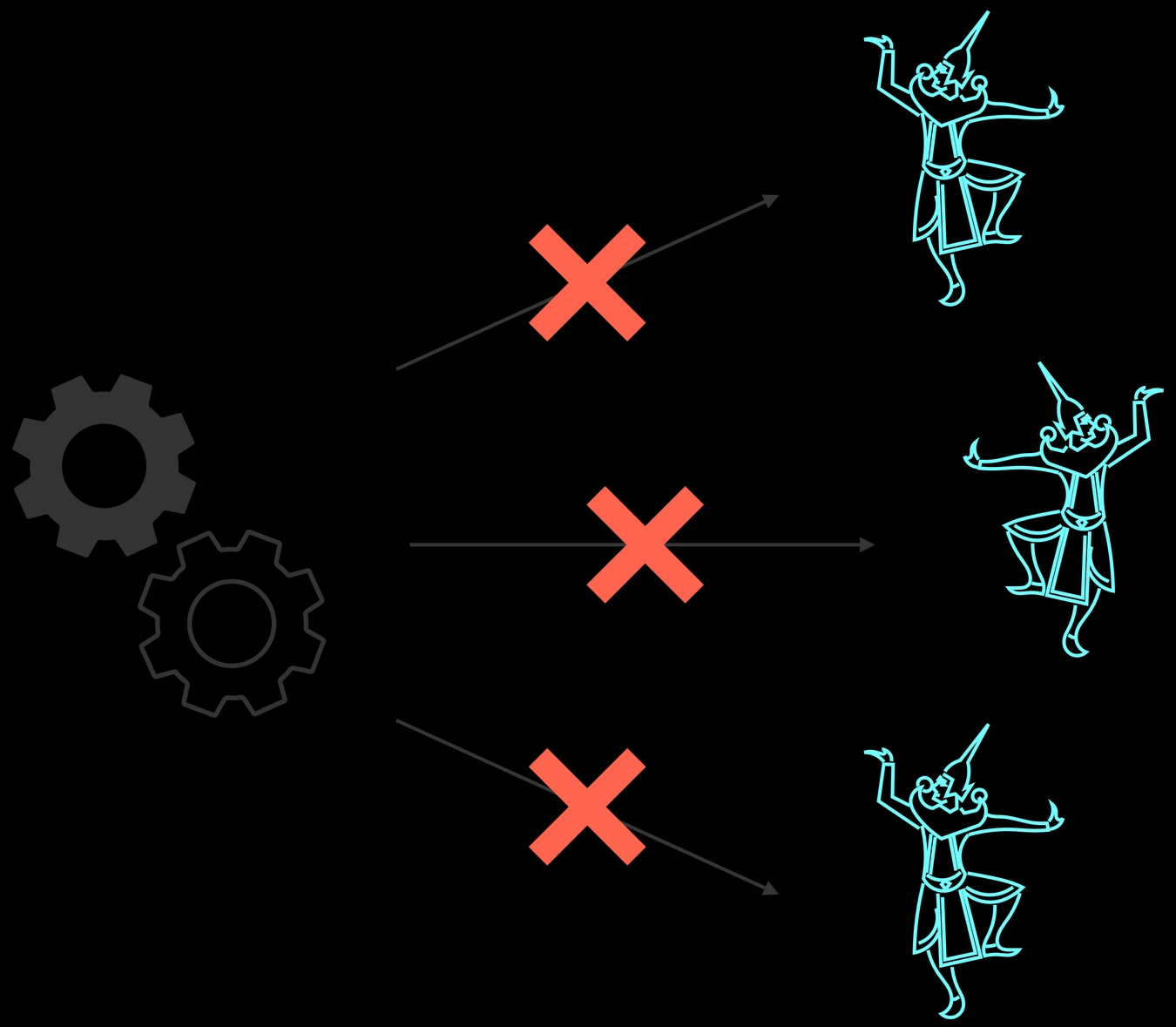
Mechanics

Meaning



Underlying
Knowledge

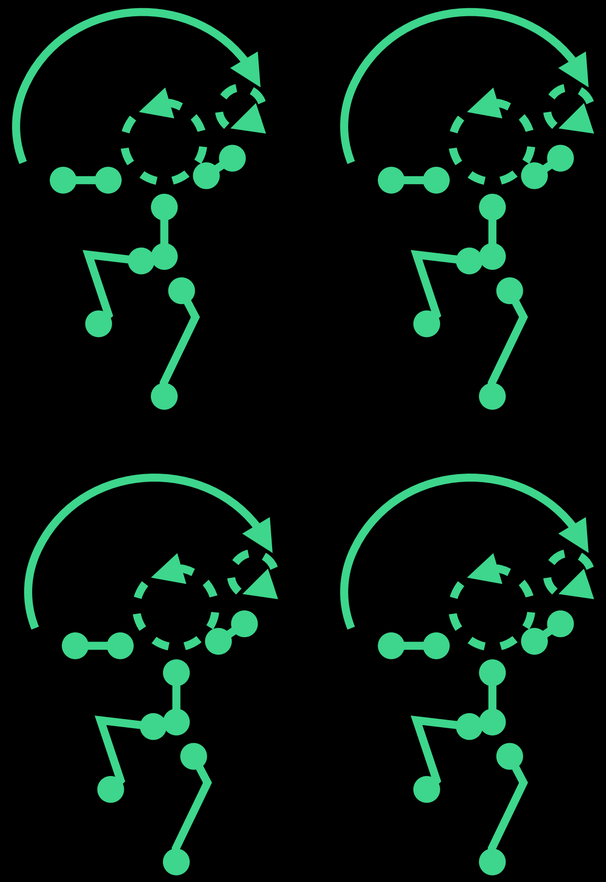
Forms



Forms
(Frozen)

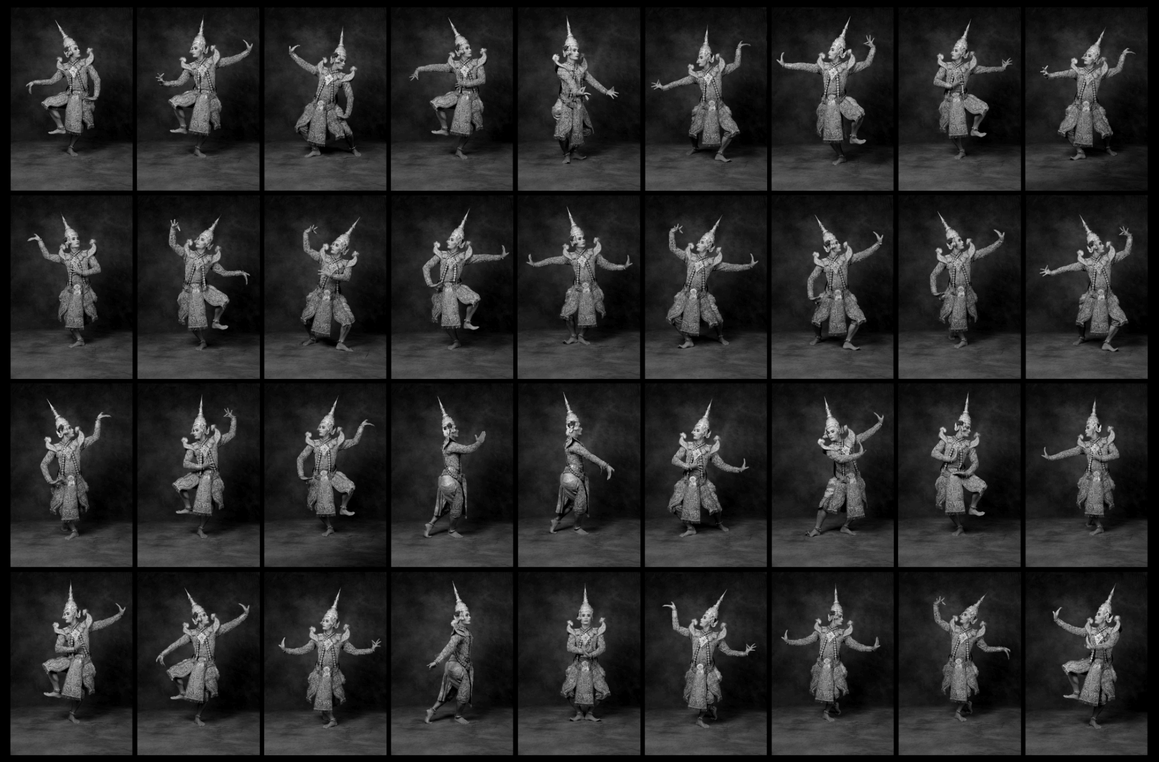
🤔

What if we try to decode
the mechanics?



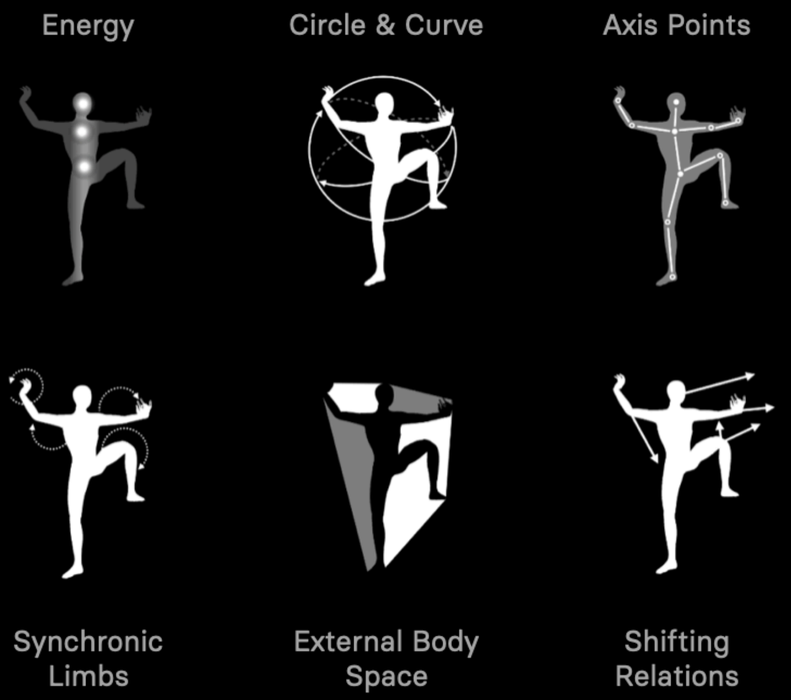
Forms

Mechanics



แม่บทใหญ่ “Mae Bot Yai”
(The Greater Fundamentals)

59 dance poses considered as the alphabet of traditional Thai dance



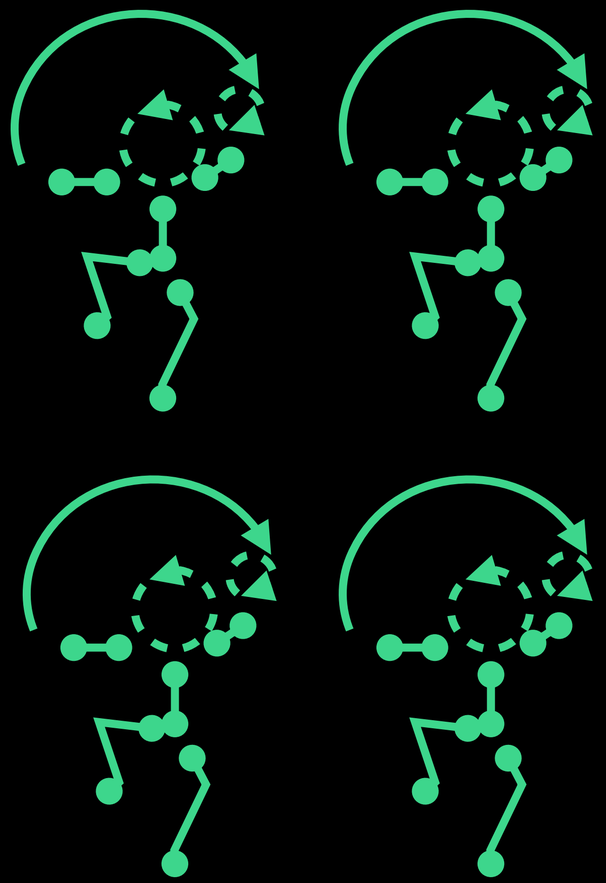
Six Elements Principle

Reinvented principles for traditional Thai dance

No.60
2017

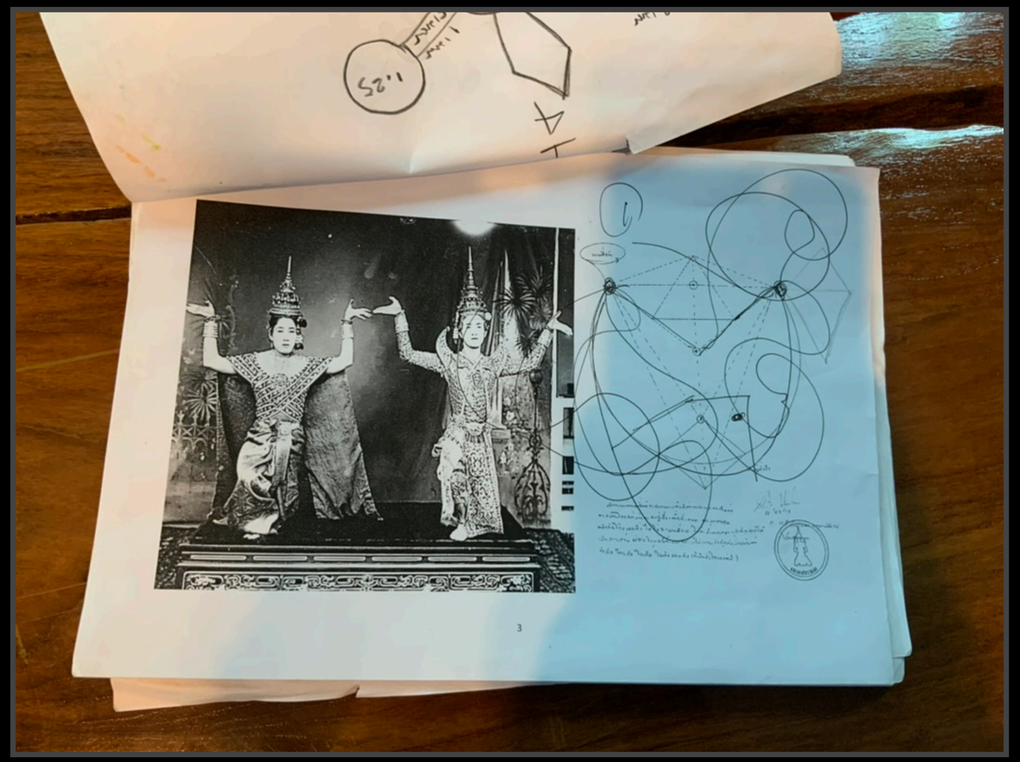
Pichet Klunchun Dance Company

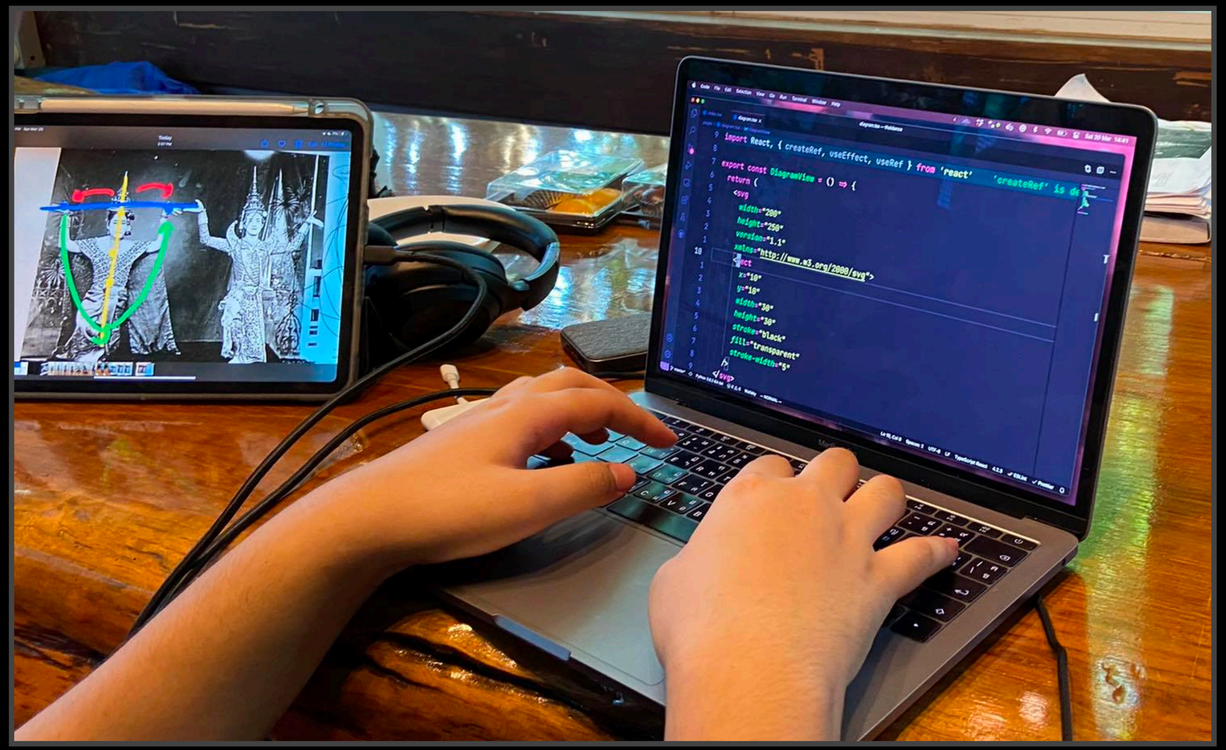
>> Fast forward to around 2021



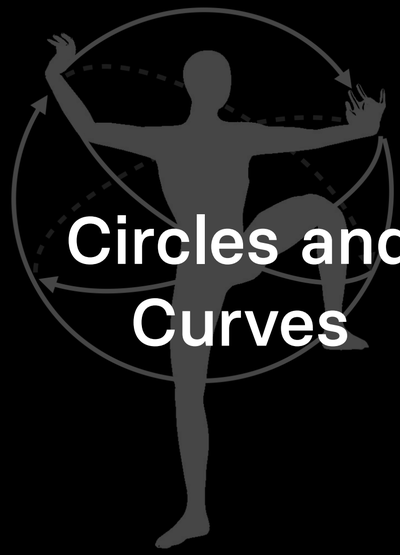
🤔

What if we try to encode
the mechanics
(into a machine)?


1.25
3



Energy



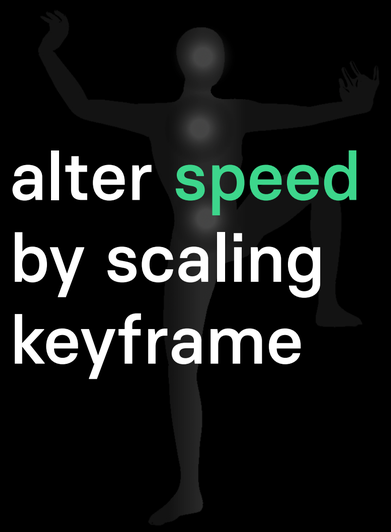
Circles and
Curves

Synchronic
Limbs

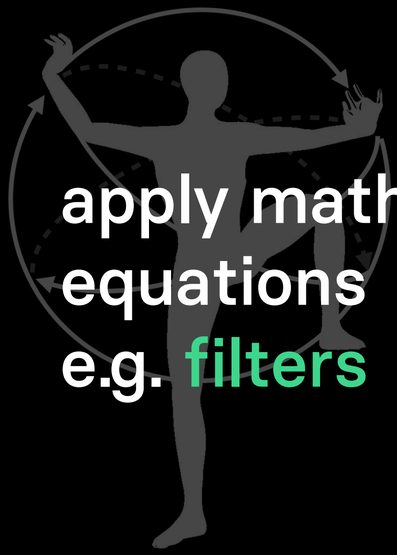
Axis
Points

External
Body Space

Shifting
Relations

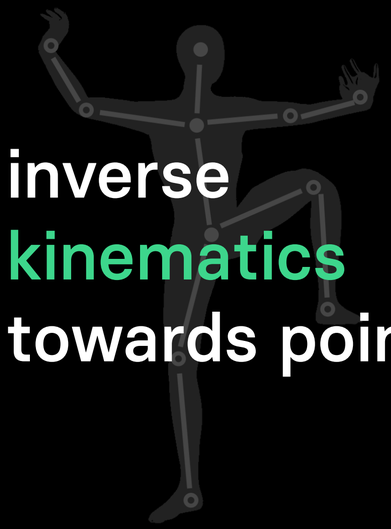


alter speed
by scaling
keyframe



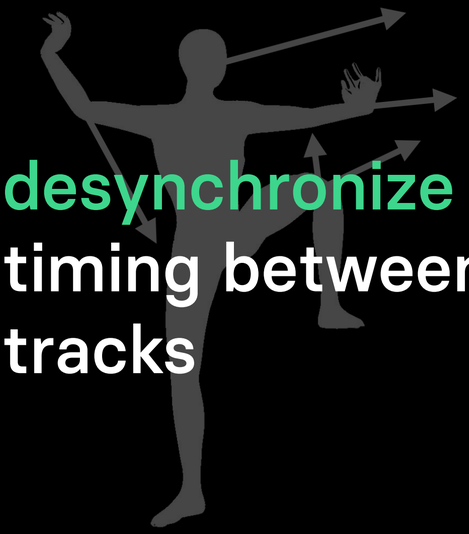
apply math
equations
e.g. filters

synchronize
timing between
tracks



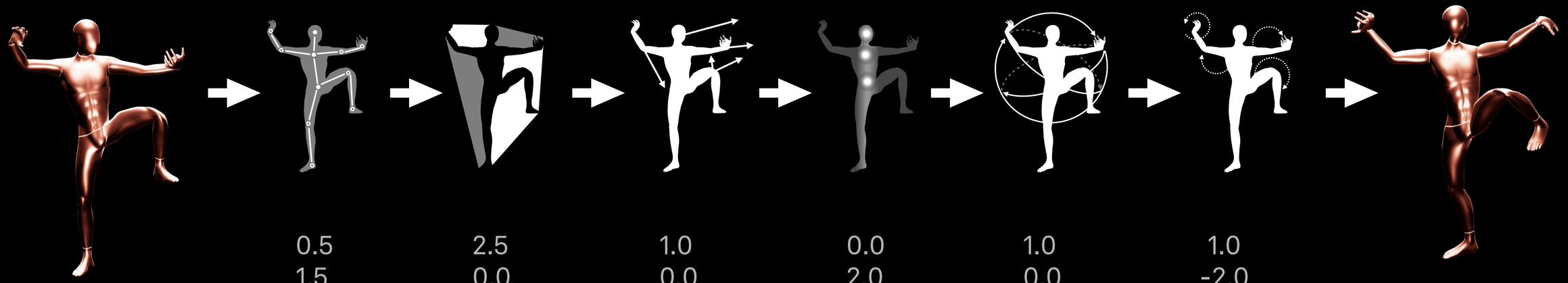
inverse
kinematics
towards point

analyze
valleys in graph
and slow down
specific frames



desynchronize
timing between
tracks

Six Elements of Dance,
Reconstructed via Math Transforms



0.5	2.5	1.0	0.0	1.0	1.0
1.5	0.0	0.0	2.0	0.0	-2.0
1.5	0.0	0.0	0.0	3.0	0.0

> energy
> circle and curve
> shifting relations
> external body space
> rotations
> reset
> dance speed
> dancers

> energy > upper body > 100% → ? (0% - 300%)
< go back

:: listening
:: 83.47 / 336.92

> executed > rotations > y > 50%

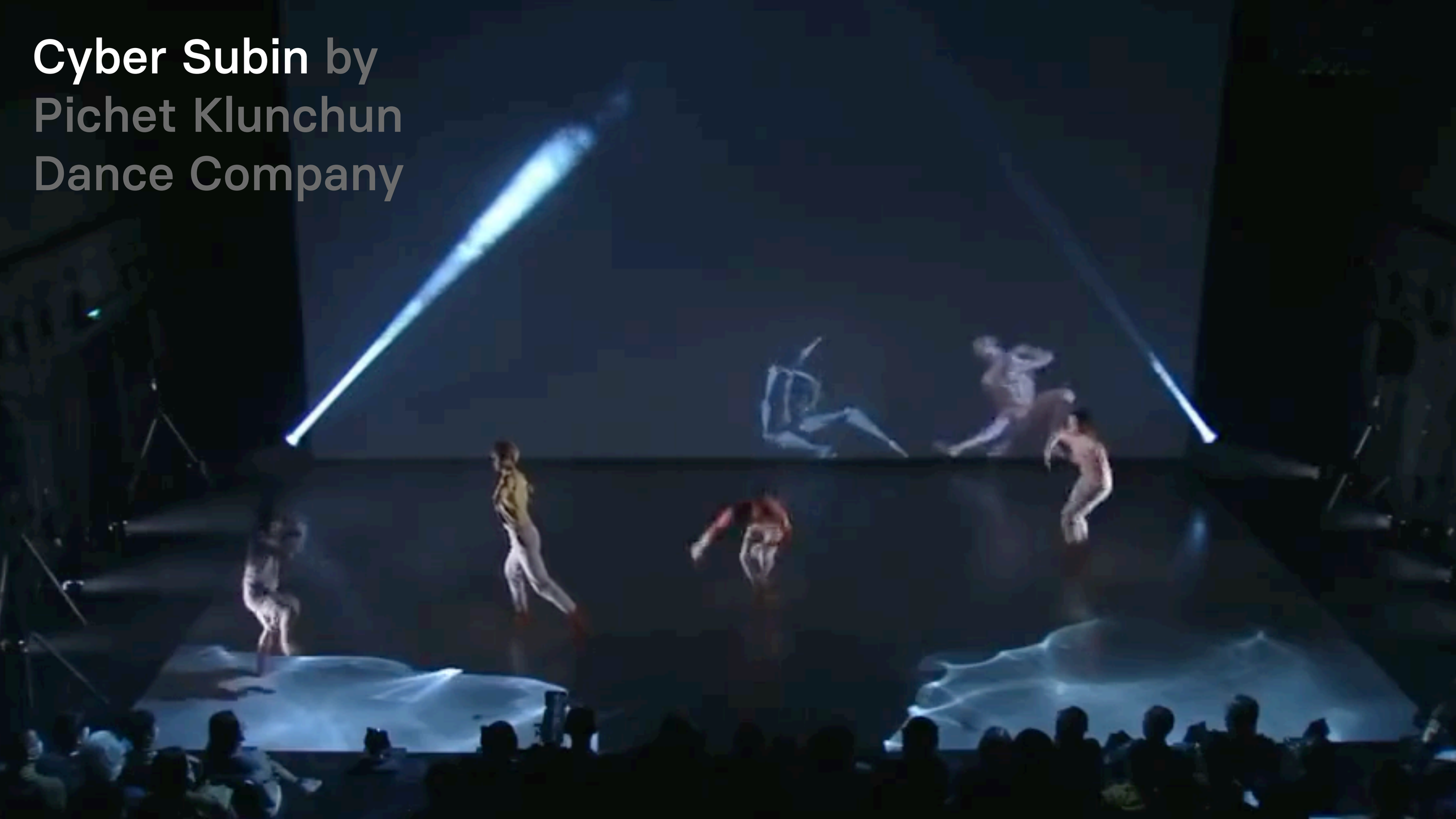
$ energy reset
$ rotations x 50 percent
$ rotations reset
$ rotations z 50 percent

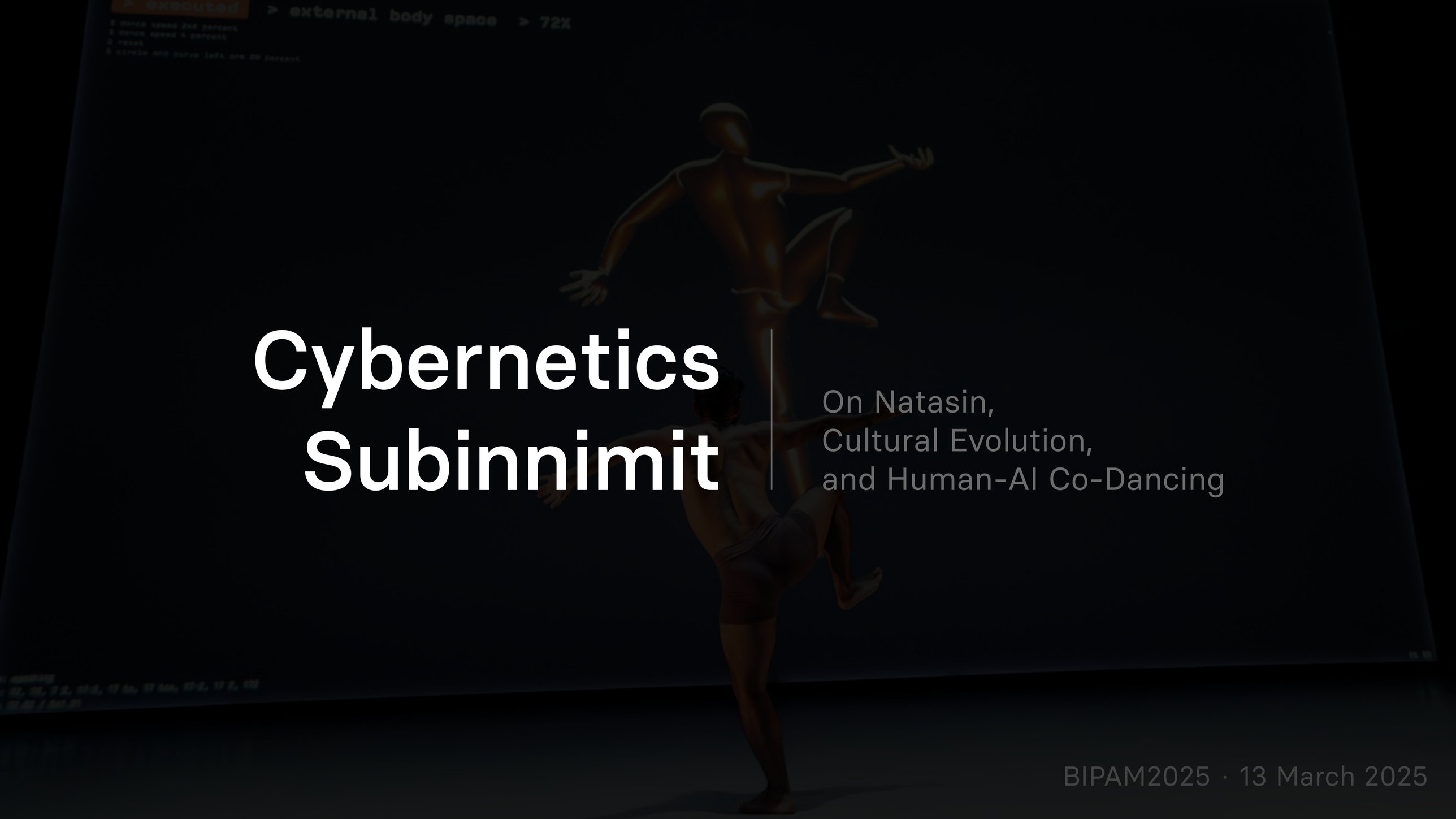
:: speaking
:: 210.40 / 336.92

> executed > energy > upper body > 50%

$ energy reset
$ rotations x 50 percent
$ rotations reset
$ rotations z 50 percent
$ rotations reset

:: speaking
:: 230.23 / 336.92


Cyber Subin by
Pichet Klunchun
Dance Company



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Cybernetics

Subinnimit

(Dream-Vision)

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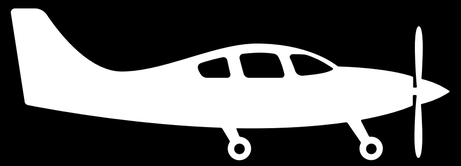
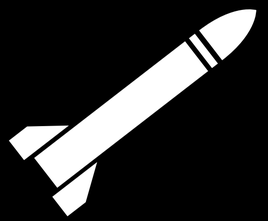
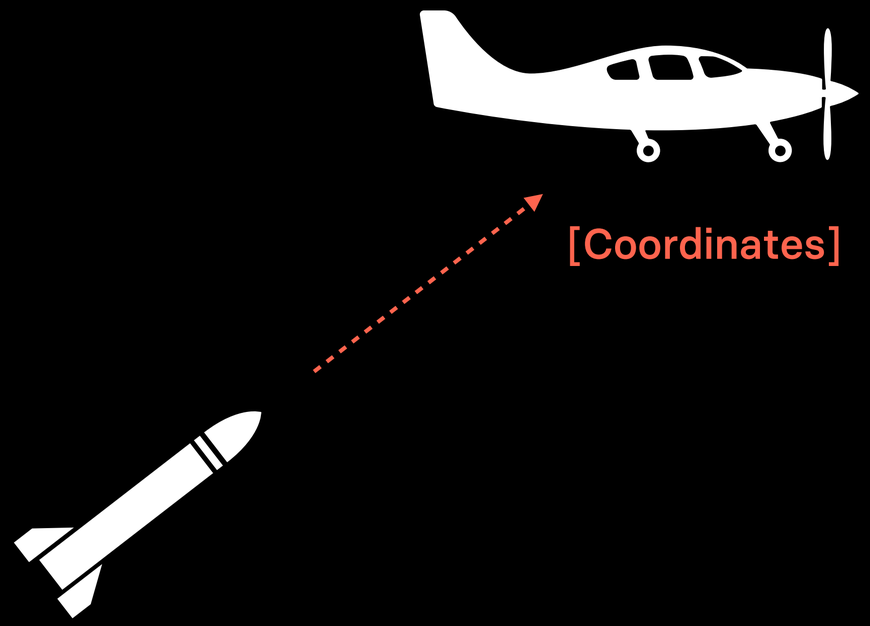
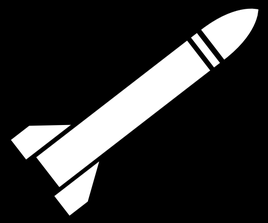
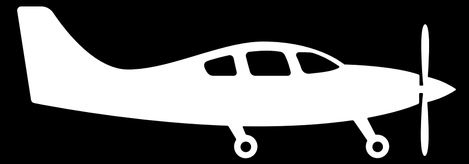




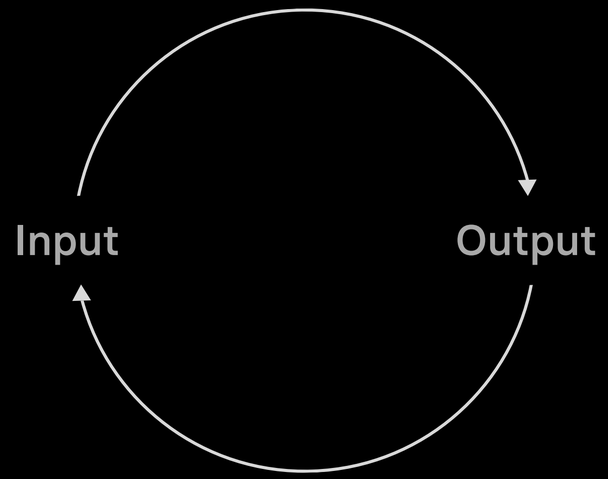

[Coordinates]



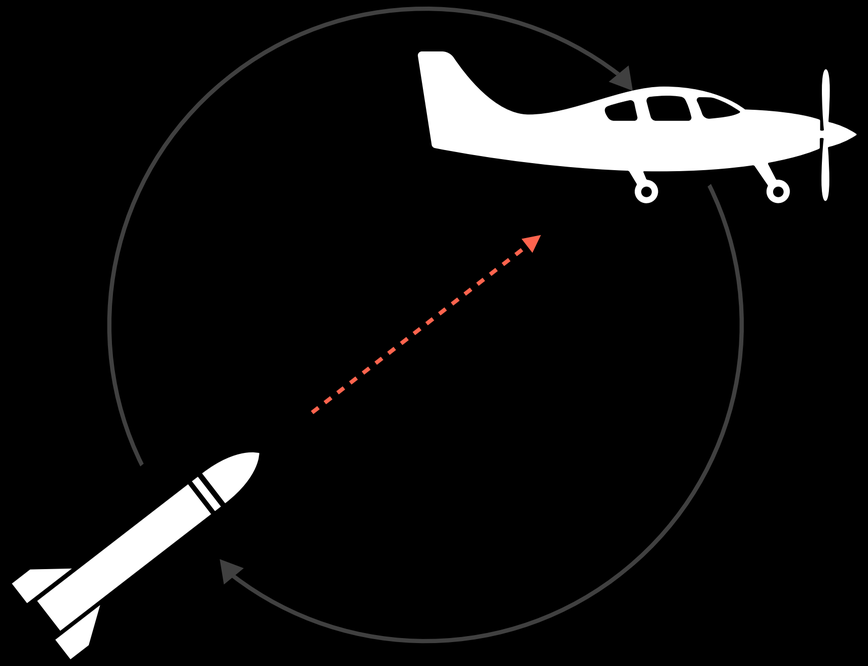


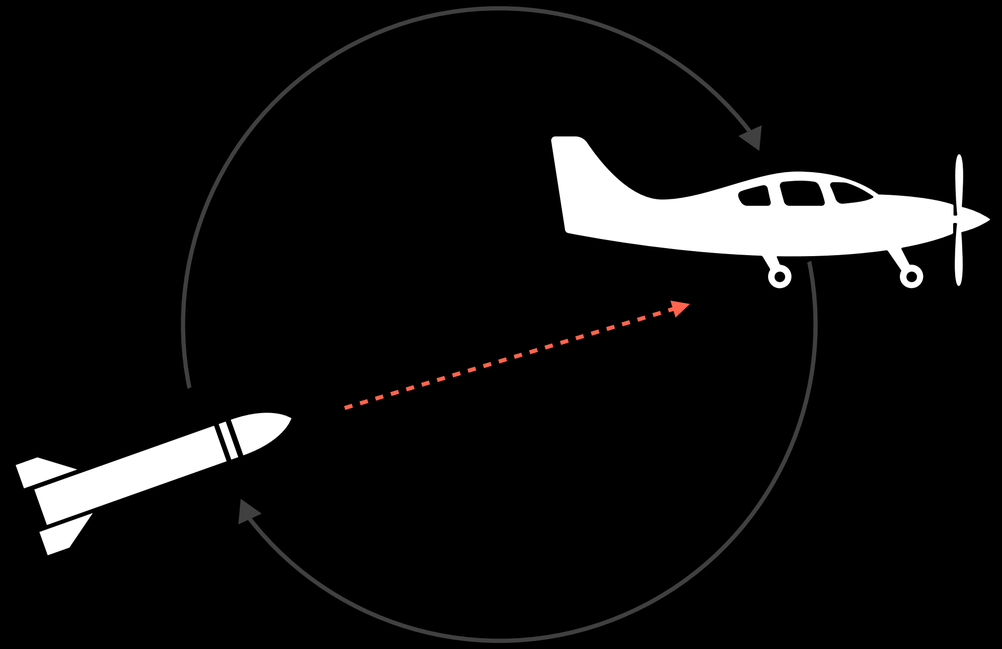
Input
Output

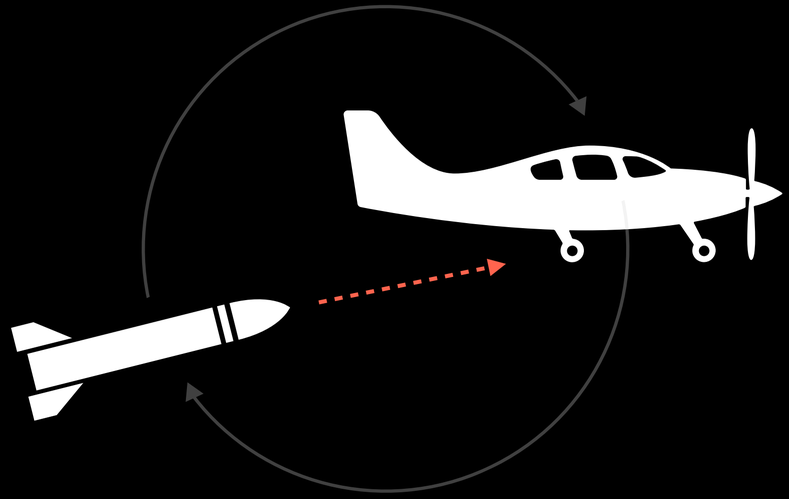
Cybernetics



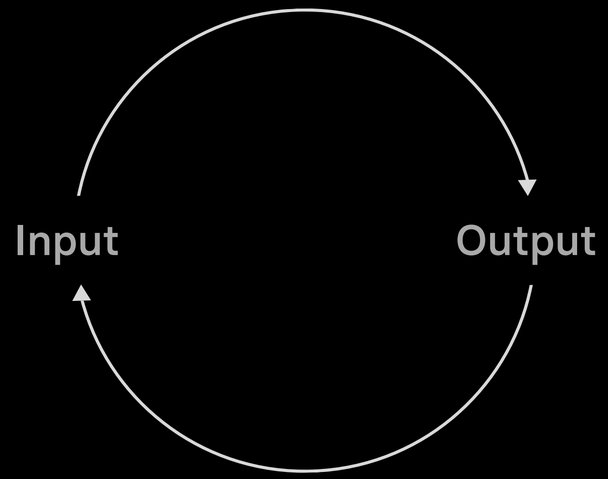
A viewpoint that considers systems as
dynamic and interactive rather than static.







Cybernetics



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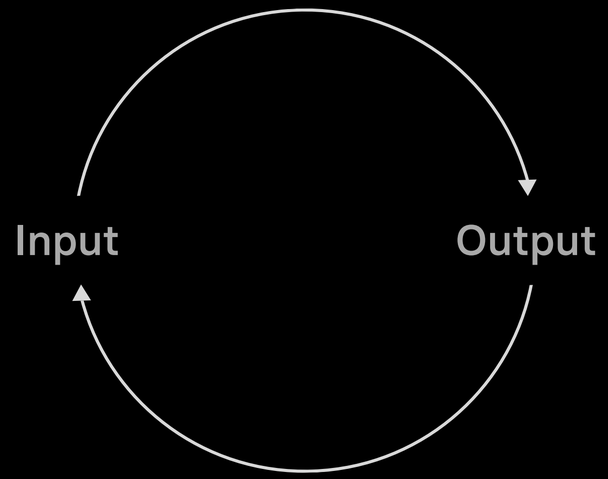
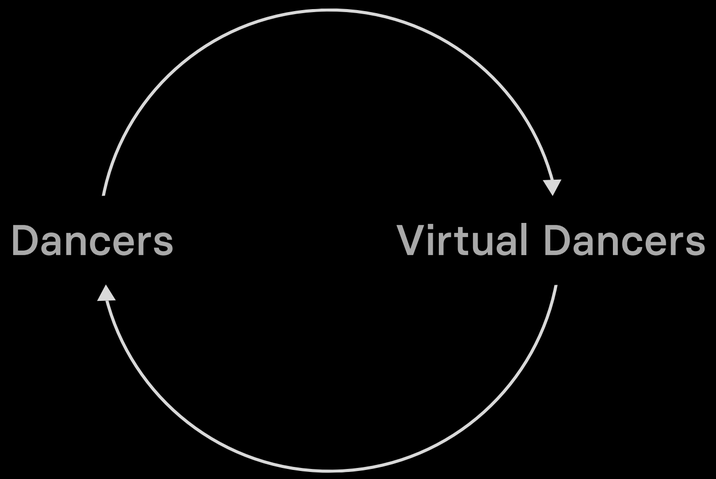
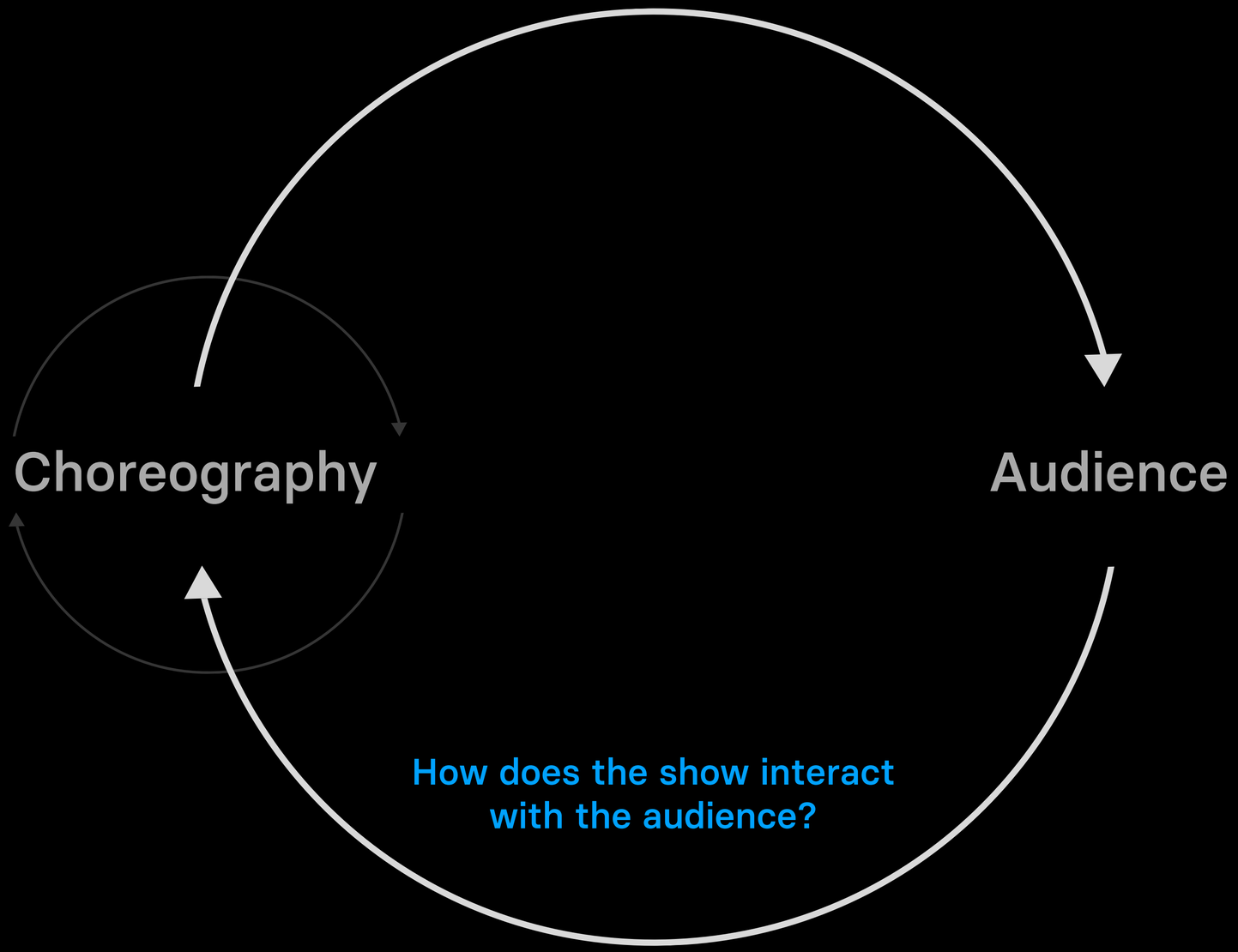
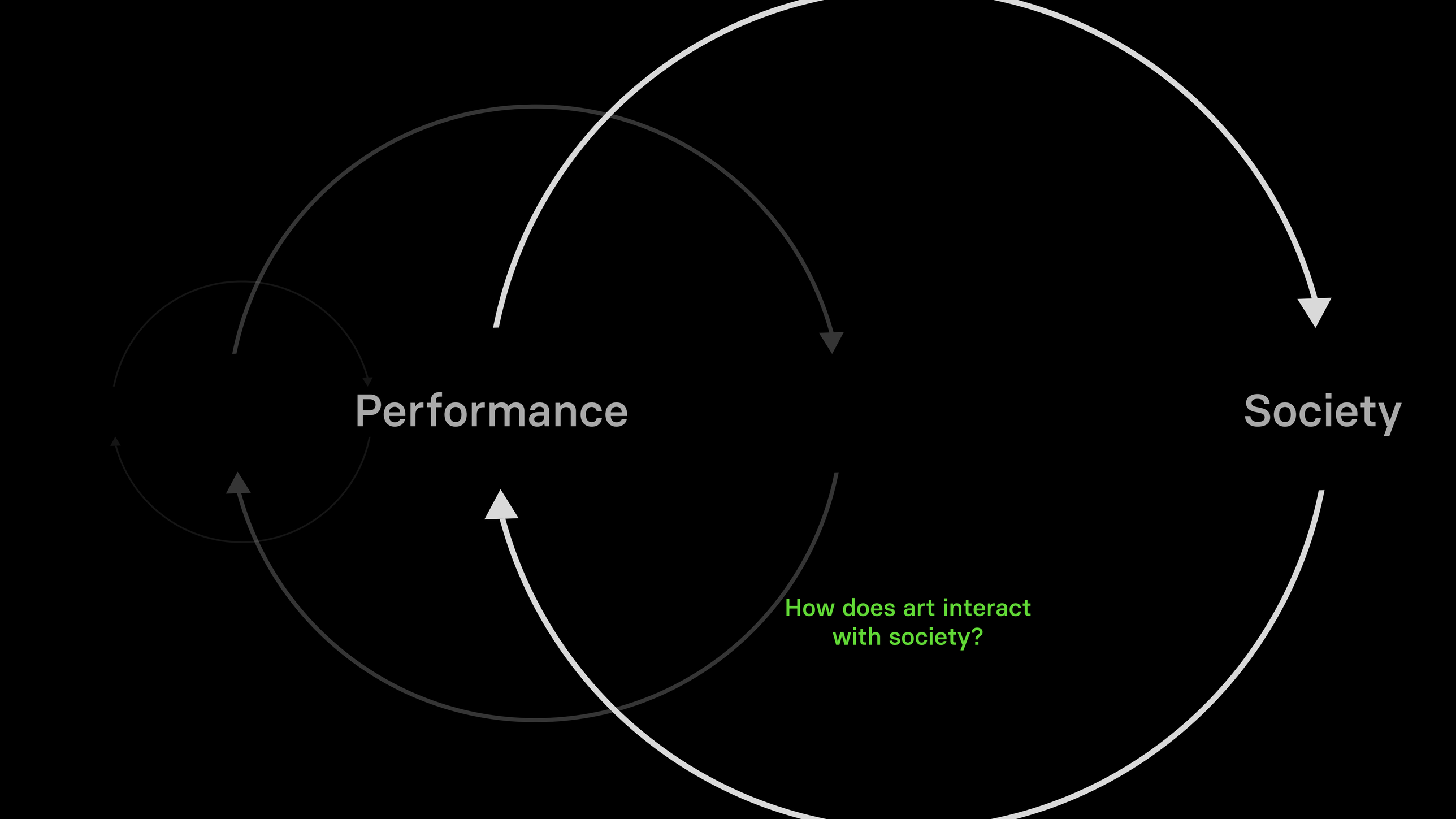


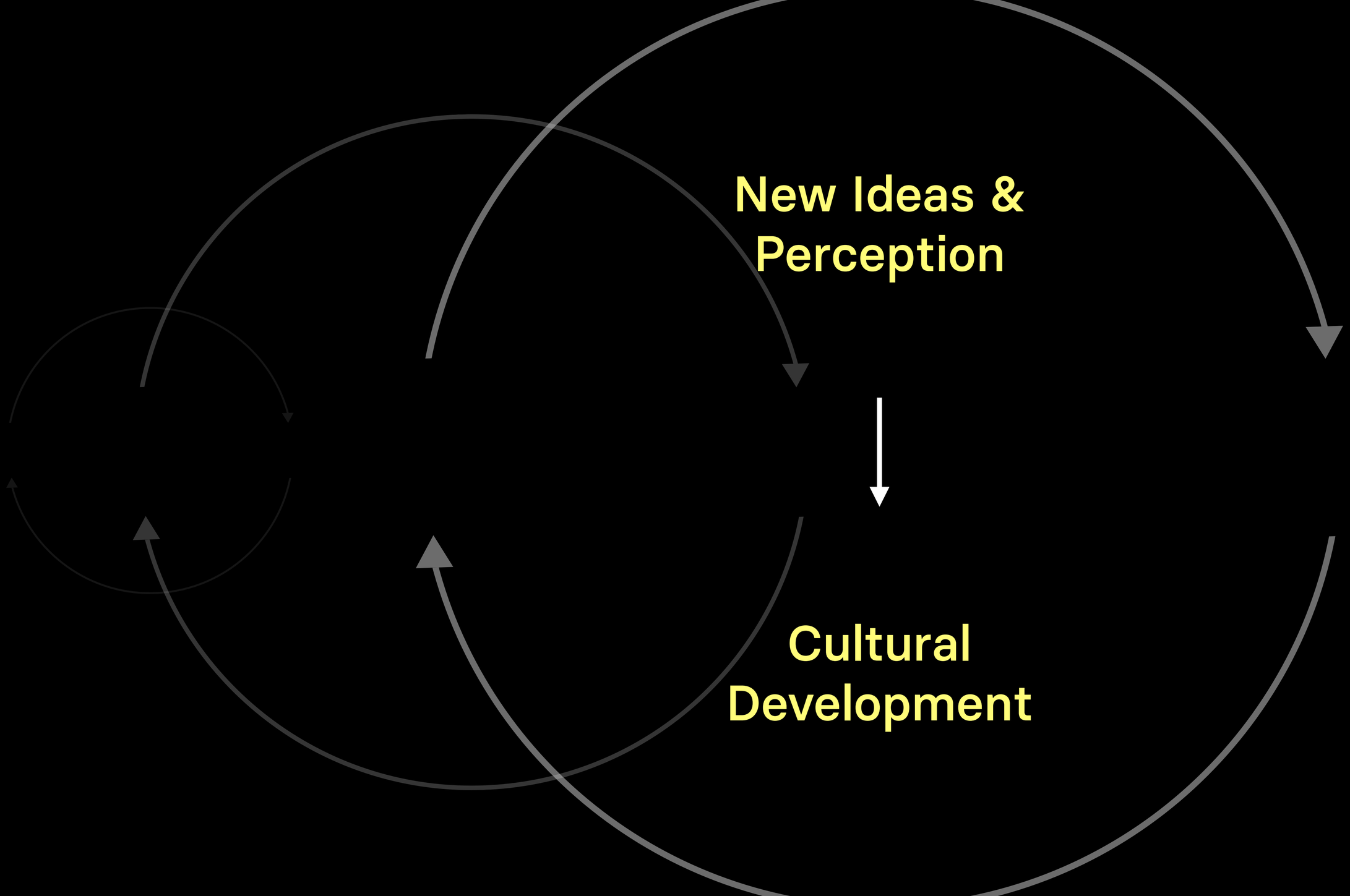
Are dances cybernetics?



How do people interact
with technologies?


Choreography
Audience
How does the show interact
with the audience?


Performance
Society
How does art interact
with society?


New Ideas &
Perception
Cultural
Development

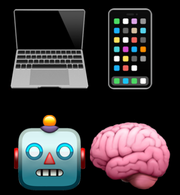
Culture as living artifacts rather than static/frozen forms

Western
Opera

Lakorn Dukdumban
ละครดึกดำบรรพ์

Chilli

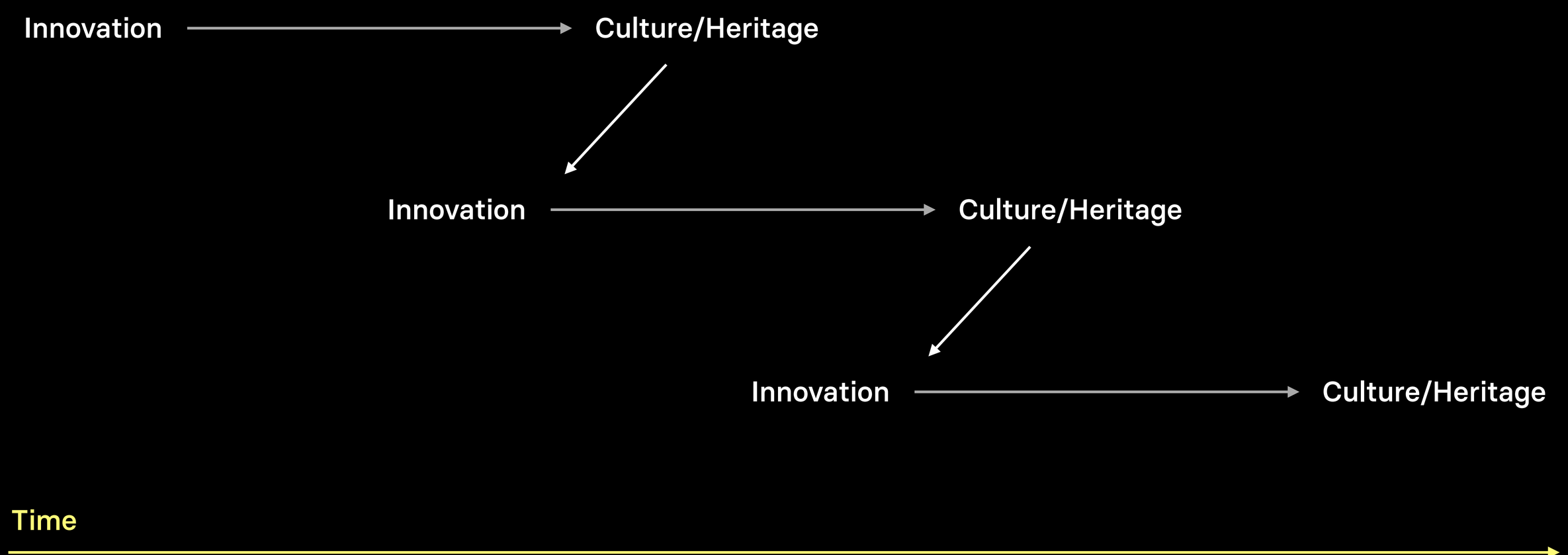
Tom Yum Kung
ต้มยำกุ้ง



Digital Technology

?

Innovation and Culture/Heritage as Two Sides of the Same Coin — Separated by Time



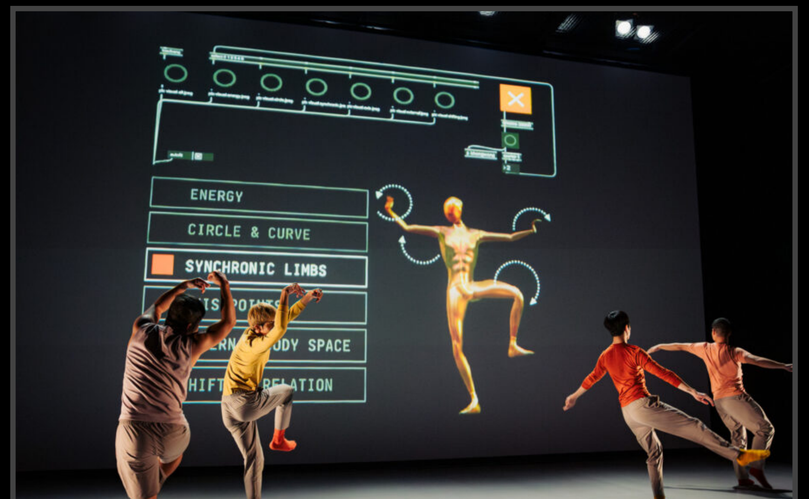
Taiwan International
Arts Festival 2024

Indonesia
Bertutur 2024

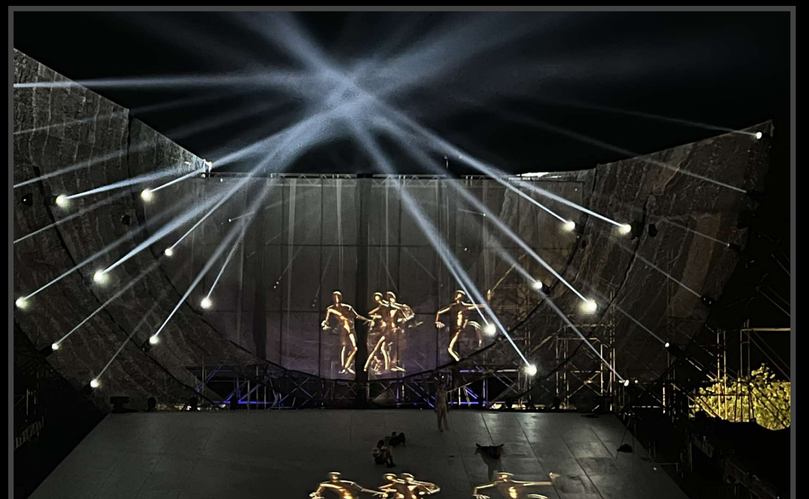
Chiang Rai/Bangkok
Performance 2025

Upcoming → Europe Tour (Mid 2025)

Taiwan International
Arts Festival 2024



Indonesia
Bertutur 2024



Chiang Rai/Bangkok
Performance 2025

Cyber Subin

Co-creator:
Pichet Klunchun
Pat Pataranutaporn

Choreographer/Director:
Pichet Klunchun

Dancers:
Padung Jumpan
Tas Chongchadklang
Chang Hong Chung
King Fai Tsang

Music Director and Composer:
Lamtharn Hantrakul

3D and Animation Creator:
Piyaporn Bhongse-tong

Creative Technologist:
Phoomparin Mano
Chayapatr Archiwaranguprok

Cyborg Scientist/Philosopher:
Pat Pataranutaporn

Lighting Designer:
Ray Tseng

Dramaturg:
How Ngean Lim

Producer:
Sojirat Singholka

Stage Manager:
Jirach Eaimsa-Ard

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mit media lab

Pichet Klunchun Dance Company

creators garten

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