

Indigenous Design Thinking

Honoring Place & Space

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IT Professional Community Day
May 23, 2019



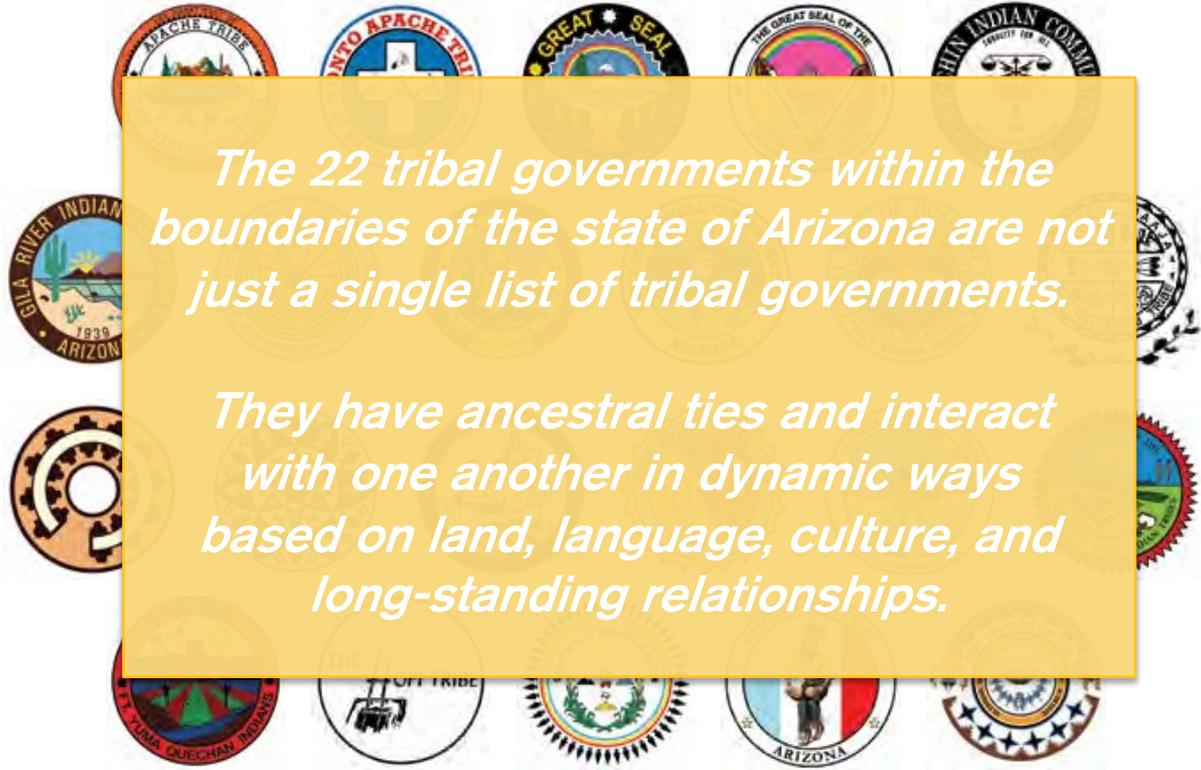
Tribal Map



- Ak-Chin Indian Community
- Cocopah Indian Tribe
- Colorado River Indian Tribes
- Fort McDowell Yavapai Nation
- Fort Mojave Indian Tribe
- Pascua Yaqui Tribe
- Salt River Pima-Maricopa Indian Community
- San Carlos Apache Tribe
- San Juan Southern Paiute Tribe

The 22 tribal governments located within the boundaries of Arizona are independent tribal nations.

It is important to begin with an understanding of the legal foundation of tribal self governance.



The 22 tribal governments within the boundaries of the state of Arizona are not just a single list of tribal governments.

They have ancestral ties and interact with one another in dynamic ways based on land, language, culture, and long-standing relationships.

Demonstrated

Commitment

ASU Charter

ASU is a comprehensive **public research university**, measured not by whom it excludes, but by **whom it includes** and how they **succeed**; advancing **research and discovery** of public values; and assuming **fundamental responsibility** for the economic, social, cultural and overall health of the **communities** it serves.



Arizona State University is located in Indian Country; there are 22 tribal nations in Arizona.

The Tempe campus sits on the ancestral homelands of those American Indian tribes that have inhabited this place for centuries, including the Akimel O'odham (Pima) and Pee Posh (Maricopa) peoples.

In keeping with the design aspirations of the New American University, ASU seeks to embrace our place, connect with tribal communities, and enable the success of each American Indian student.

We reaffirm the university's commitment to these goals and acknowledge that everyone, the entire ASU community, is responsible for their achievement.

Excerpts from President Michael Crow Letter, October 2015



American Indian

Programs & Services

Academic Programs & Centers

American Indian Student Support Services (AISSS)

American Indian Studies (Bachelors & Masters)

Construction in Indian Country (Engineering)

Center for Indian Education (Education)

Mary Lou Fulton Teachers College (Education)

Office of American Indian Projects (Social Work)

Indian Legal Program (Law)

American Indian Policy Institute (Policy and Capacity Building)

Labriola National American Indian Data Center



Demonstrated Commitment

Over **3,000** American Indian students

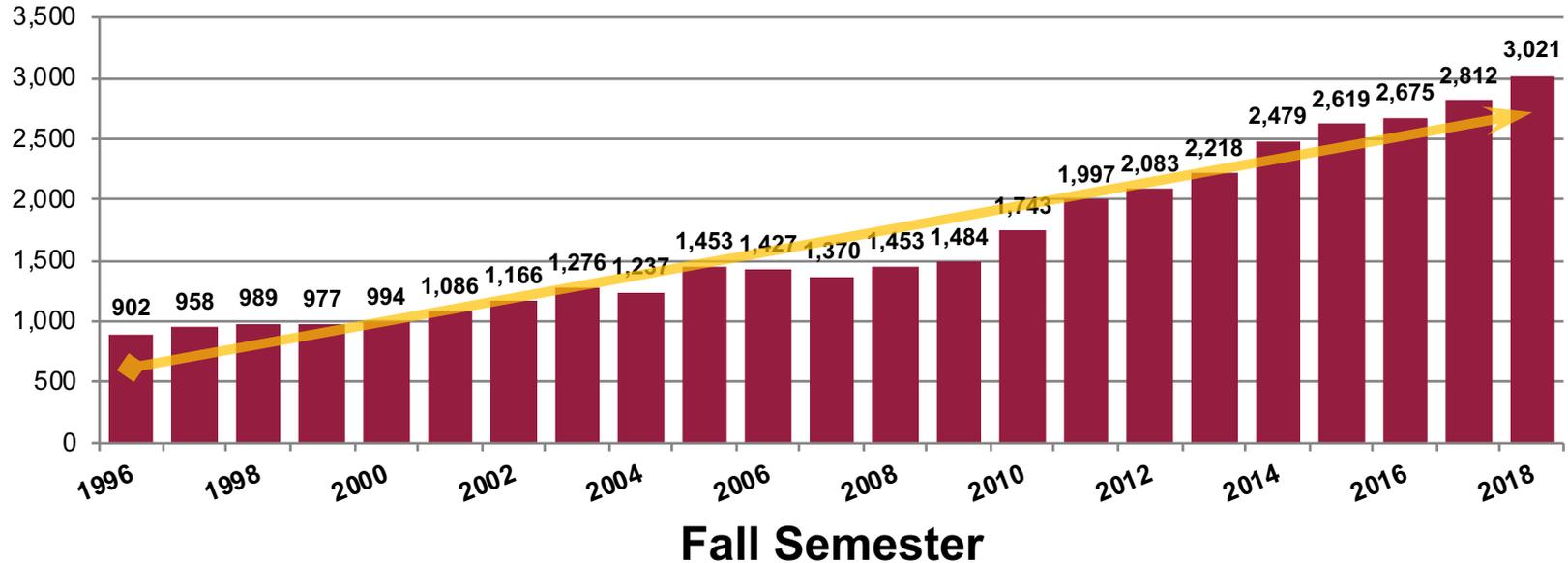
American Indian students from over **187** tribal nations

Over **30** American Indian faculty

40 American Indian staff

Specialized certificate and degree programs

American Indian Student Enrollment



*Beginning in 2010, figure reflects students who self-identify as American Indian solely and/or in addition to one or more ethnic/racial identities, as per updated federal reporting categories.

University Office of Institutional
Analysis
First Day Fall 2018



Fall 2018 AI/AN Enrollment

445 Graduate

Doctoral	88
Masters	322
CER/NDG	35

58 Law

1 ST Professional	37
Masters	21

1099 New Students

1 st Time Freshmen	356
Transfers	430
Non-Degree	3
Grad/Law/Readmit	300

2,518 Undergraduate

Freshmen	410
Sophomore	472
Junior	756
Senior	819
Non-Degree	3
Post-Bac	58

By Campus

Tempe	1,254
Downtown	461
West	127
Poly	146
Online	1,015
CAHLC	5
Tucson	6
CAC/AWC/EAC	7

357

Majors Represented

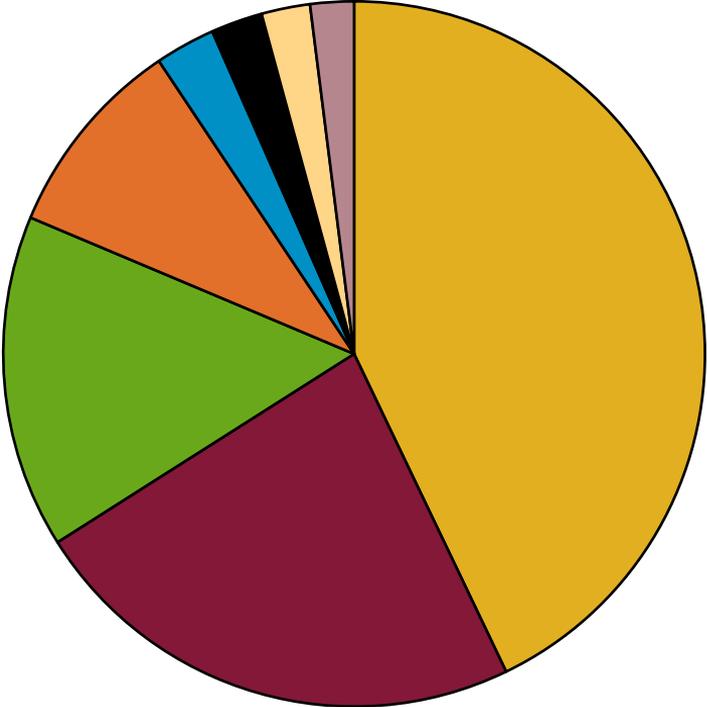
4

**Yavapai Apache Nation
Students with Tribal
Scholarship**

Masters
1 MSW
1 MFA
Undergraduate
1 Psychology
1 Exercise & Wellness
1 Online Student



Fall 2018 American Indian Tribal Representation



- Other 1,301 (42.9%)
- Navajo 703 (23.2%)
- Unknown 464 (15.3%)
- Cherokee 282 (9.3%)
- Chocktaw 84 (2.8%)
- Pima 72 (2.4%)
- Tohono O'Odham 68 (2.2%)
- Apache 61 (2.0%)

Total ASU Enrollment — 111,291
Total American Indian Enrollment — 3,035
(2.7% of Total Enrollment)



2019 American Indian Students Registered for Spring Graduation:

256 Undergraduate

19 JD

362 Total

83 Masters

4 PhD





Indigenous Placekeeping

Case Study: Campus Design and Planning

Mechanism

Indigenous Design Collaborative (IDC)

**IN WHAT
WAYS CAN
DESIGN
EXPAND
ACCESS?**

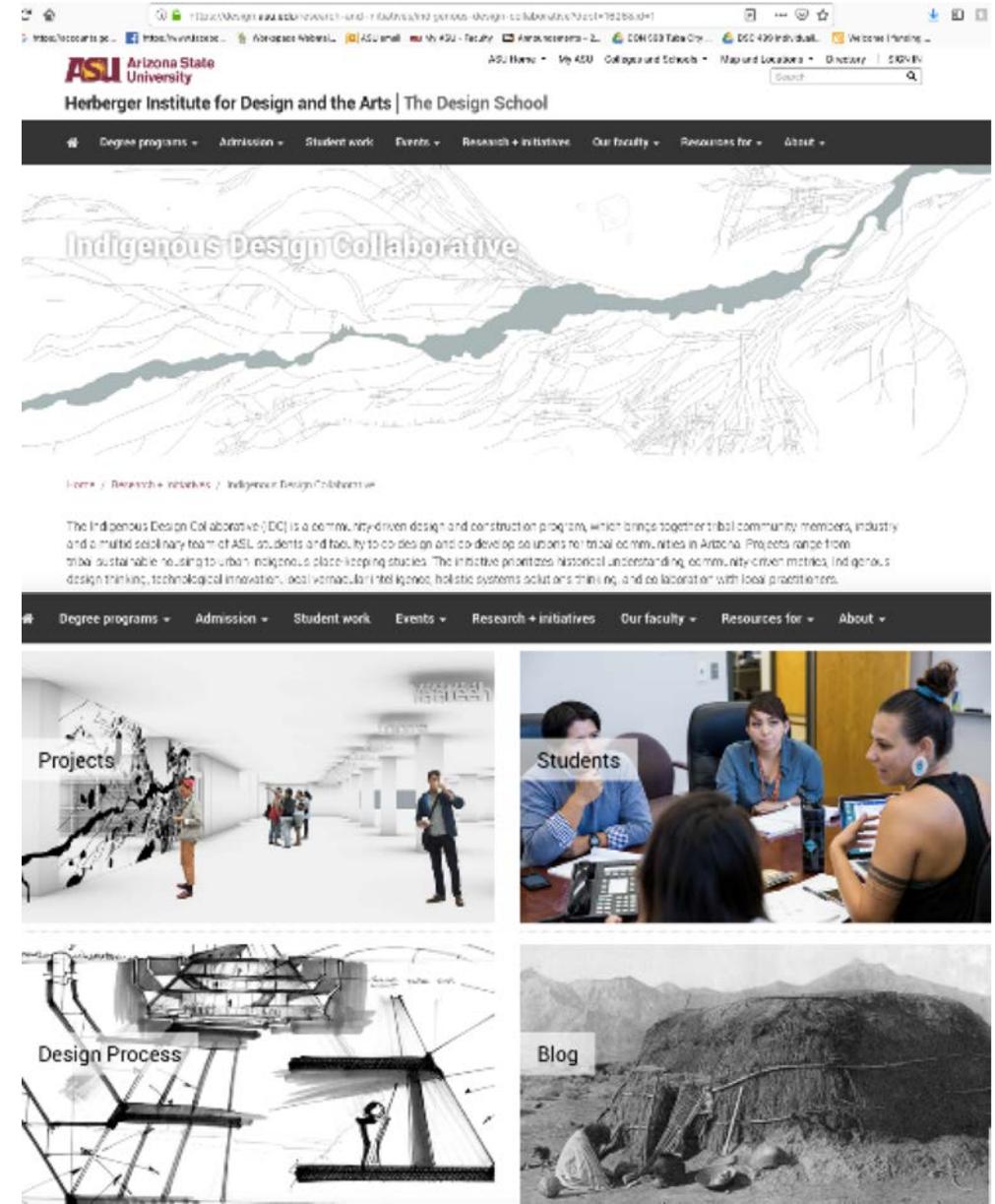


IDC – a vehicle to undertake Placekeeping work in AZ

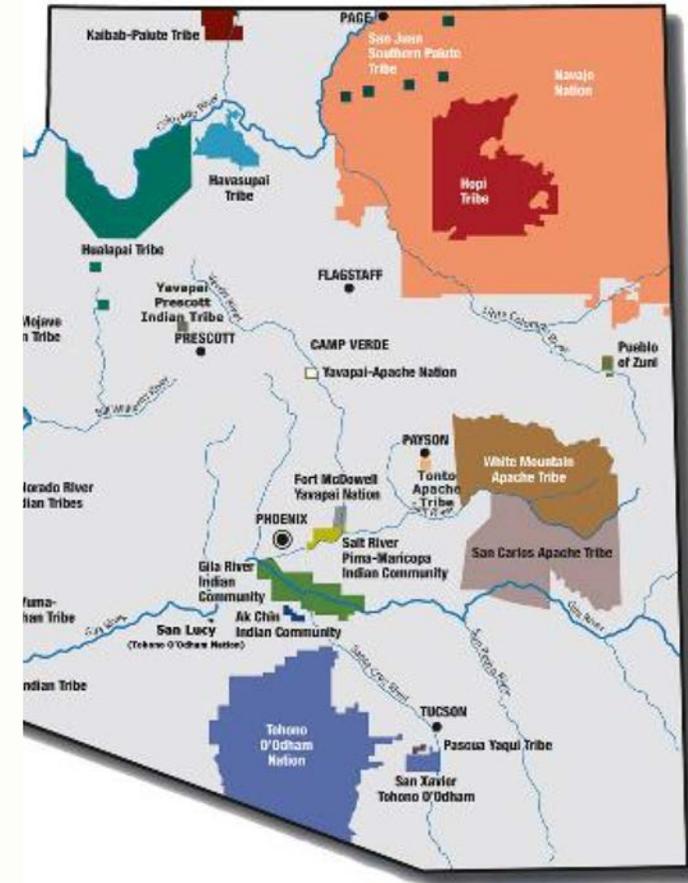
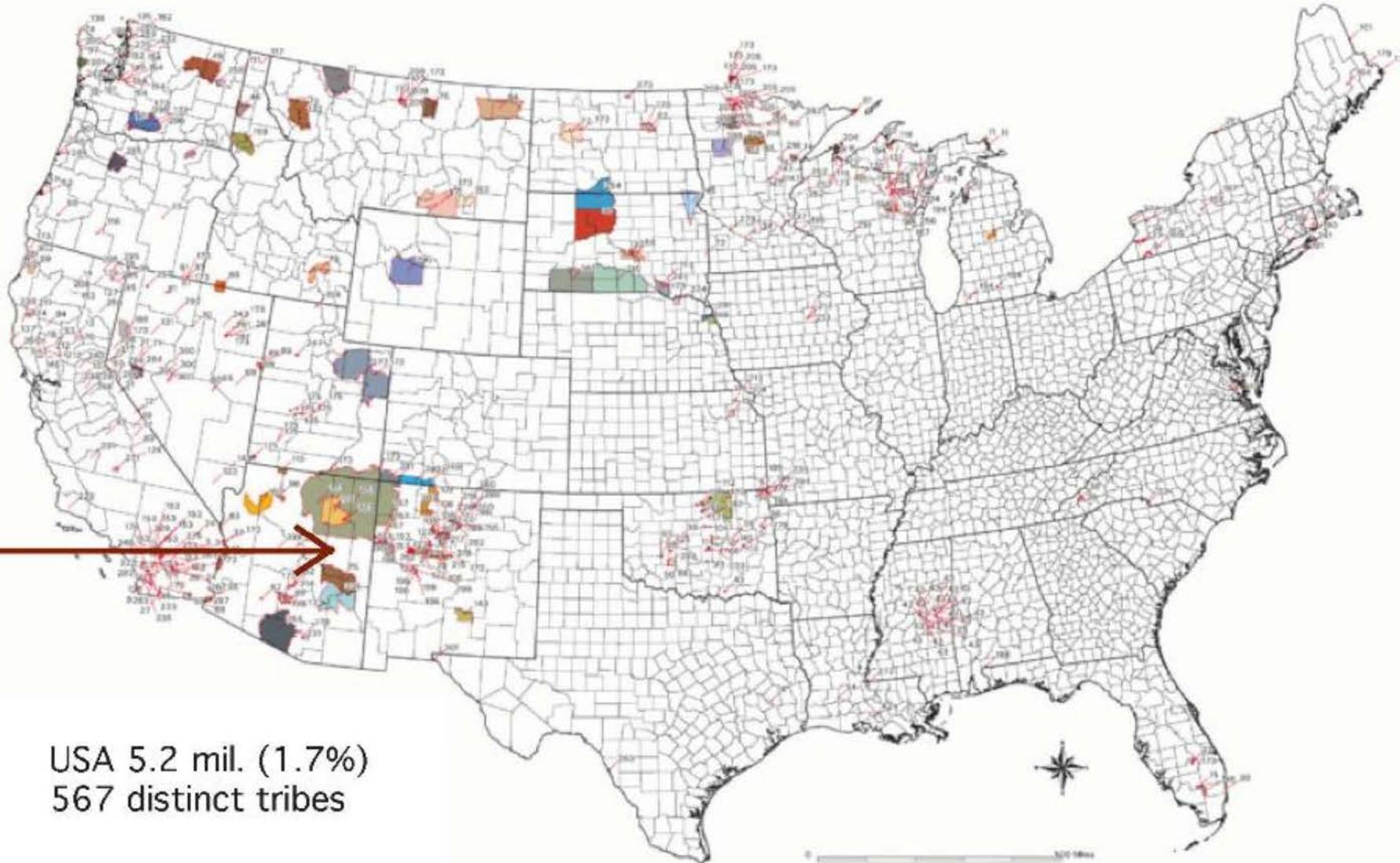
A **community-driven design program** co-developing solutions (rural and urban).

Team

- Tribal partners +
- industry partners +
- interdisciplinary students



Why Phoenix? 22 tribal communities in AZ



Why ASU? Diversity in design students

Arizona has the **second largest (55K) number of K-12 Native students in USA**, surpassing California (43K) and only behind Oklahoma (116K).



52

Native
Design
Students

Method

Indigenous Placekeeping Framework (IPKF)

SOLAR EAR

An estimated 66% of people living with hearing loss reside in underserved countries, yet only 10% use hearing aids. Batteries, hard to find in remote areas, are also the largest expense. In 2002, a team in Botswana—the majority deaf—designed an affordable, quality hearing aid and a solar charger, costing only \$100 compared to \$1,800 for conventional aids. This product innovation allows children to attend school, and adults to work. In China, the Botsmanans trained deaf workers, reversing a policy that prohibited the deaf from electronics jobs. In Brazil, Solar Ear further developed a low cost digital hearing aid.

DESIGNERS: Clement Bagwasi, Tembepel Katsipa, David Reidtsho, Refalla Mshelakeng, Modesta Nyiramba, Seach Phiri, Howard Whitson, Godes Technologies Trust (Gaborone, Botswana)

DEVELOPS: 2002-present

FOUNDED BY



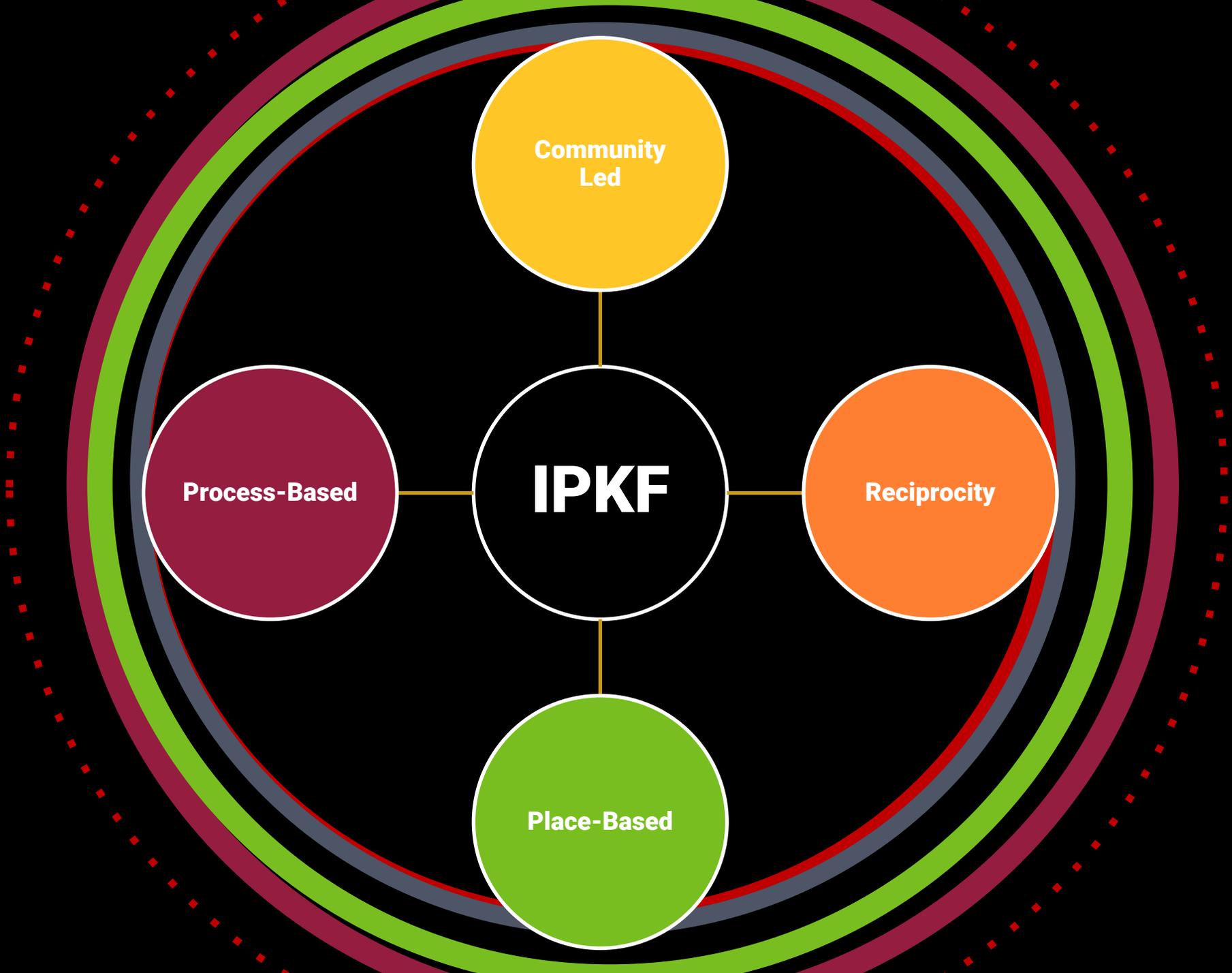
SMARTCANE

Visually-impaired people in countries like India face different challenges—including low-hanging wires or signage with inadequate head clearance along often narrow foot paths—than their counterparts in locations with stricter regulations. With no footing on the ground, obstacles can cause serious injury if not detected by a typical white cane. Designed in India, the SmartCane detects obstructions between a person's knee and chest up to ten feet away. Sensors emit and receive ultrasonic waves that trigger haptic vibrations when a physical hazard is detected, using various patterns to differentiate obstacles and distances.



HOW MIGHT DESIGN IMPROVE HOW PEOPLE LIVE?





**Community
Led**

IPKF

Reciprocity

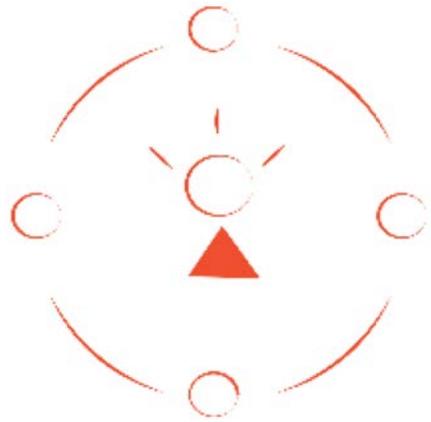
Place-Based

Process-Based

Key attributes of Indigenous learning

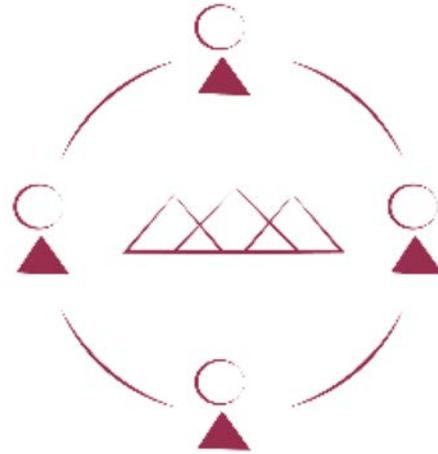
1. Learning is holistic.
2. Learning is a lifelong process.
3. Learning is experiential in nature.
4. Learning is rooted in Aboriginal languages and cultures.
5. Learning is spiritually oriented.
6. Learning is a communal activity, involving family, community, Elders.
7. Learning is an integration of Aboriginal and Western knowledge.

Bringing holistic worldviews to higher education



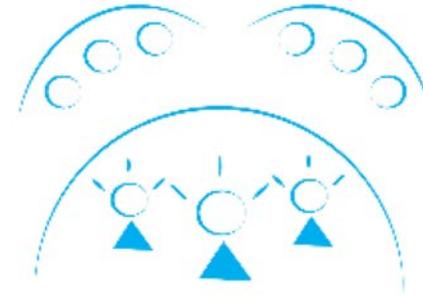
Ways of **KNOWING**

*Teaching, Learning,
Research*



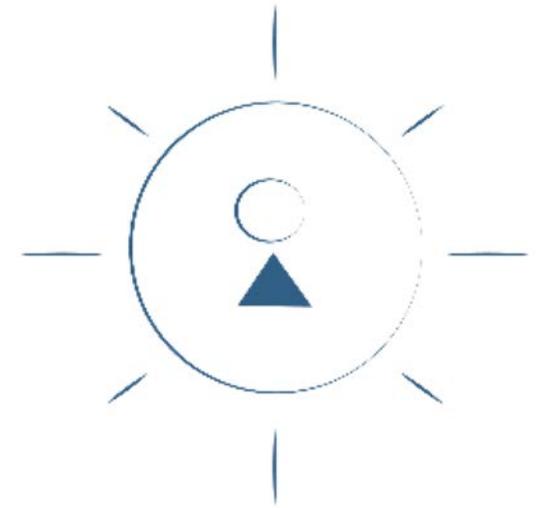
Ways of **DOING**

*Policies,
Procedures,
Practices*



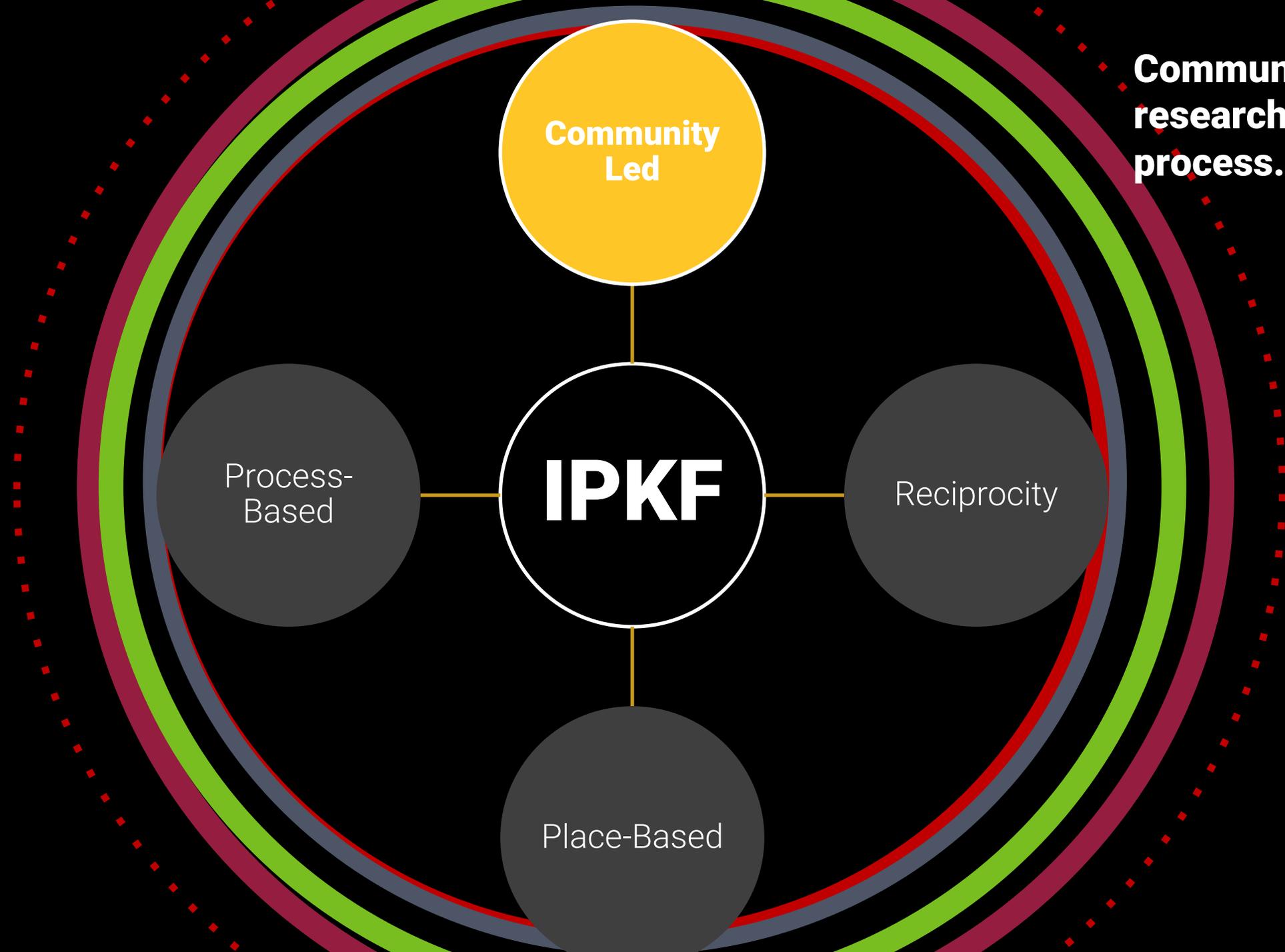
Ways of **CONNECTING**

*Relationships,
Partnerships,
Connections to Land
and Place*

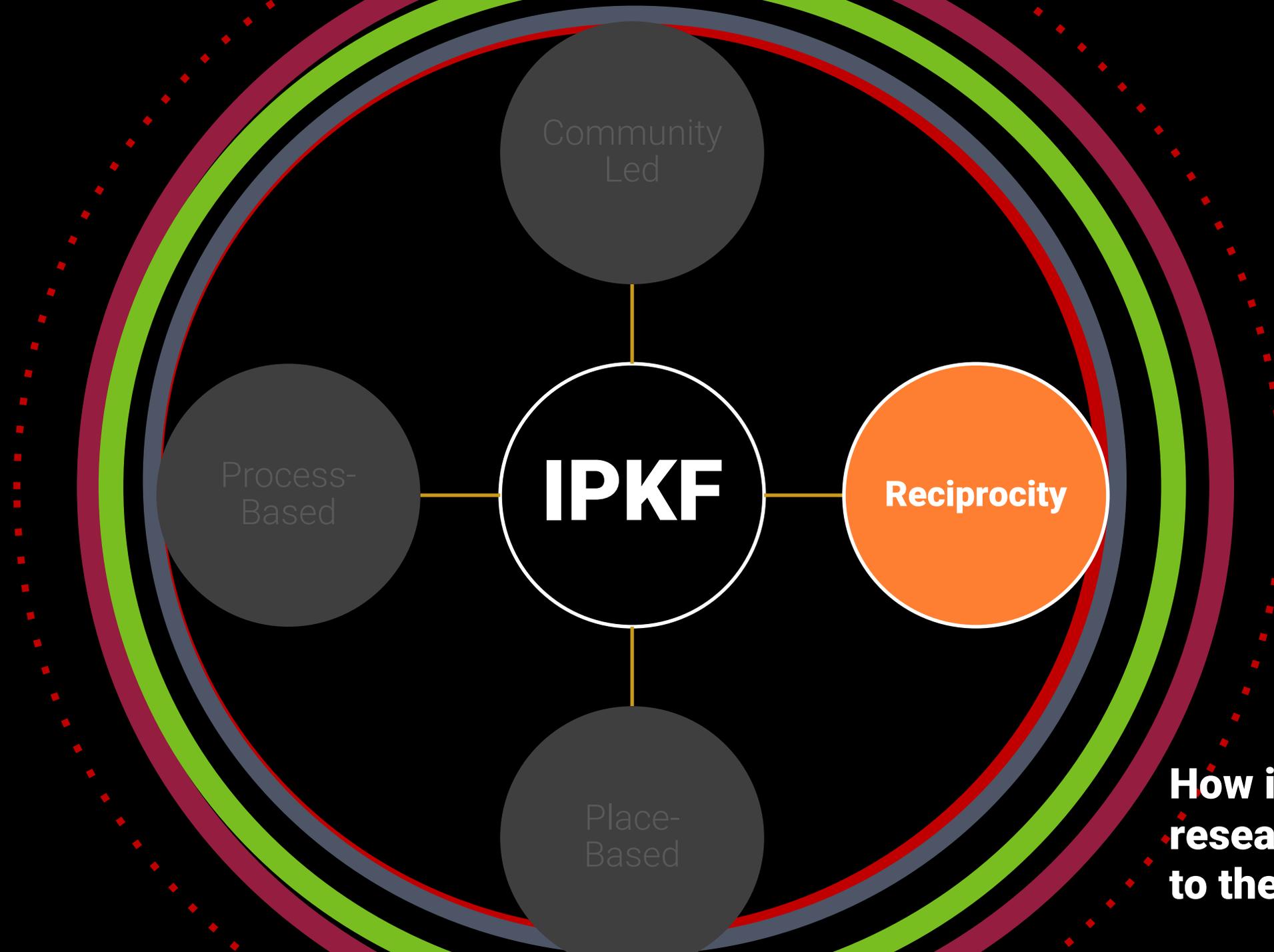


Ways of **BEING**

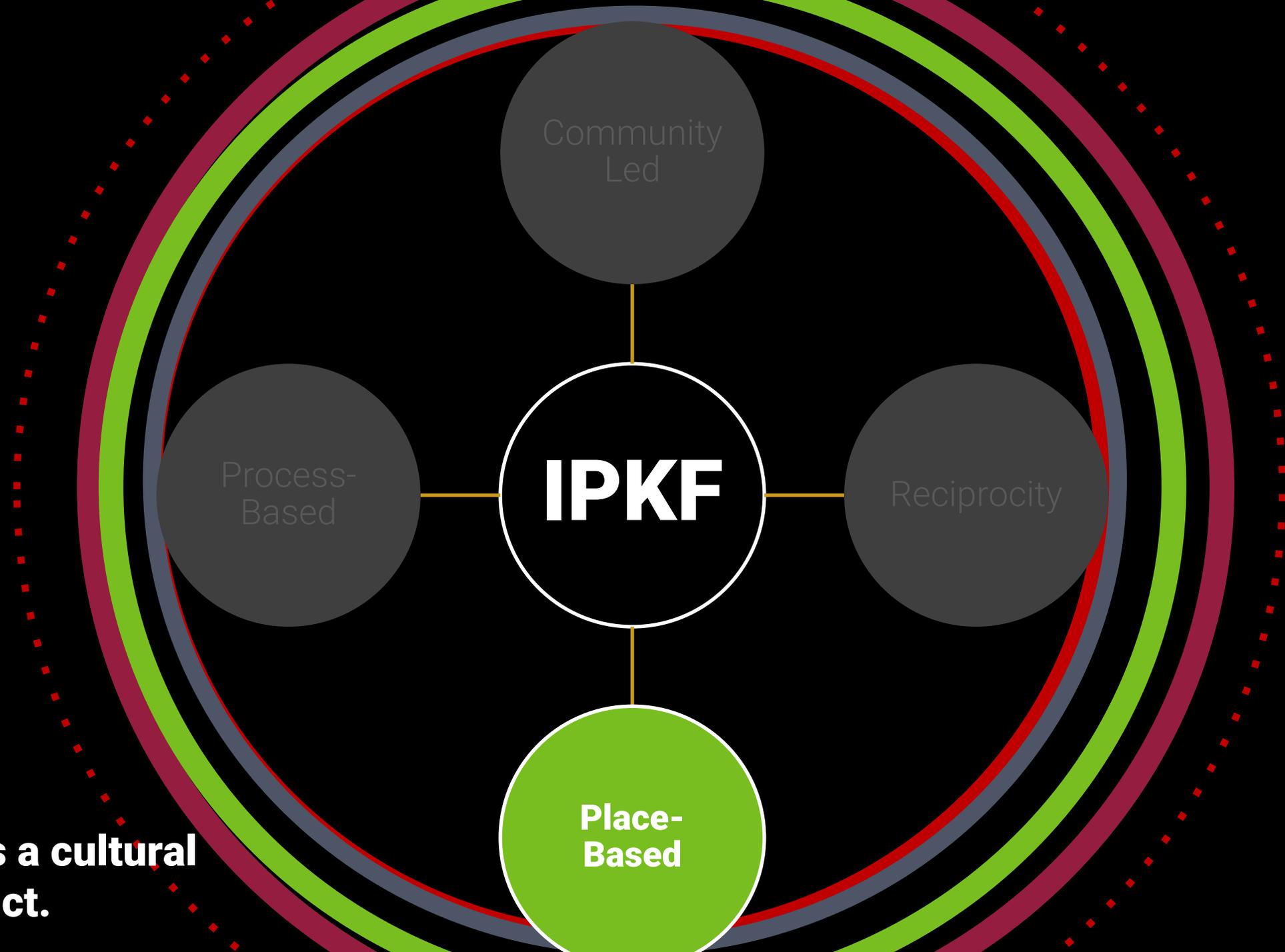
*Campus Identity,
Inclusivity,
Leadership,
Engagement*



**Community drives
research priorities +
process.**

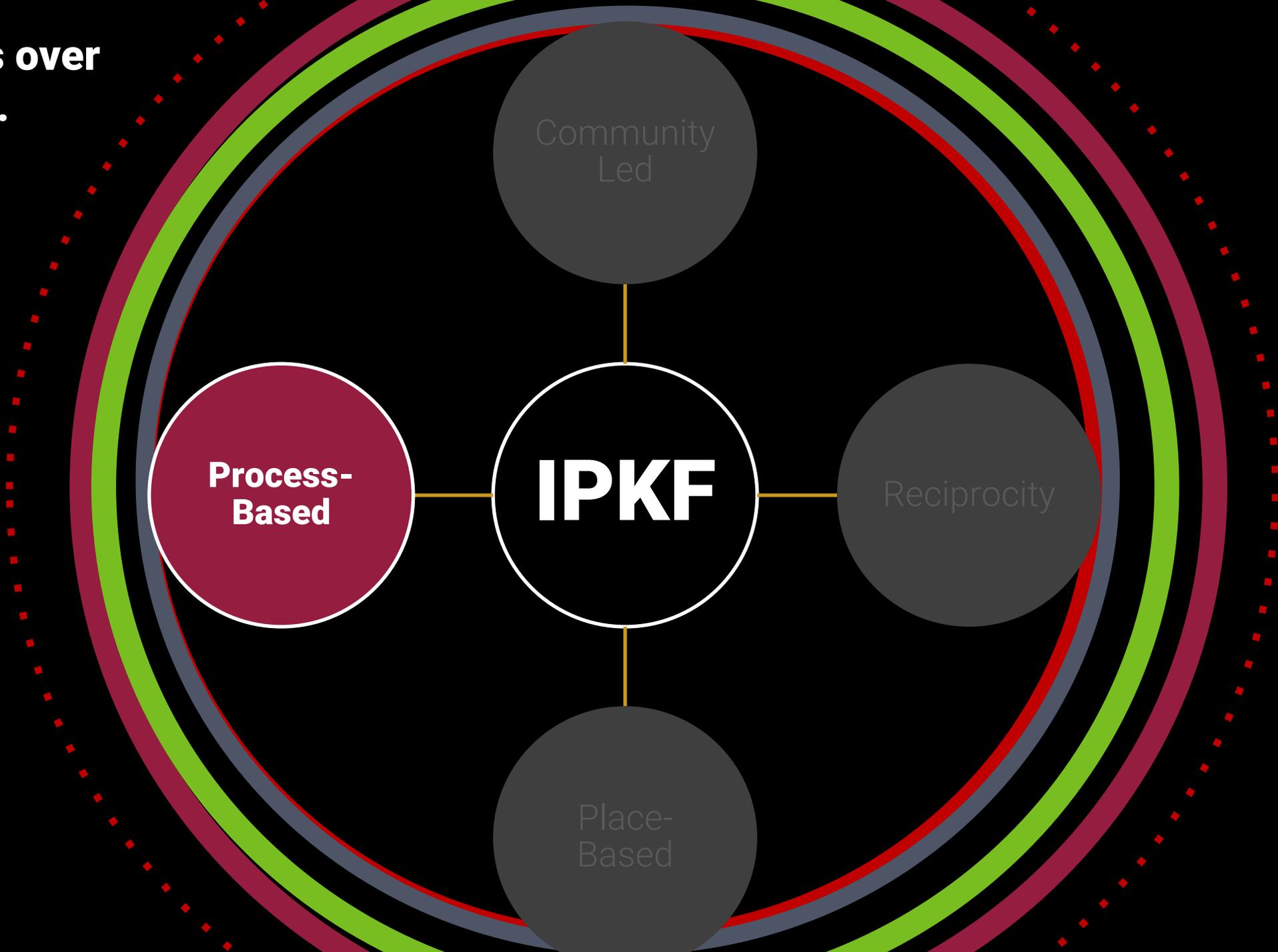


**How is the
research 'useful'
to the tribe?**



Place is a cultural construct.

Process over product.



Case Study

ASU Indigenous Placekeeping on ASU's Campus

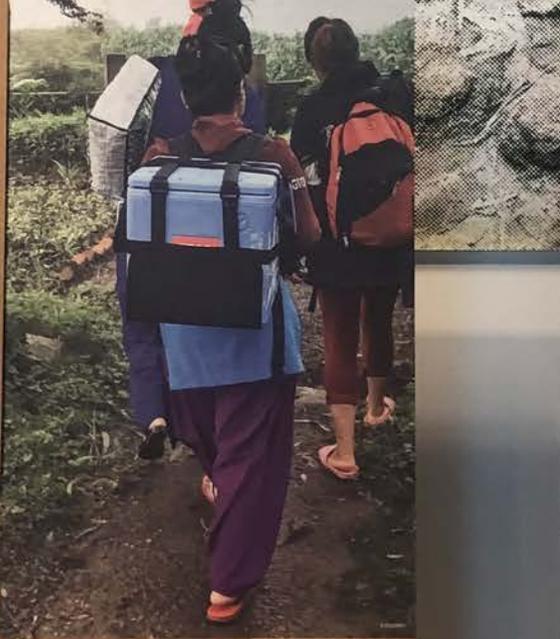
IN WHAT WAYS CAN DESIGN ACT AS A CATALYST FOR CHANGE?



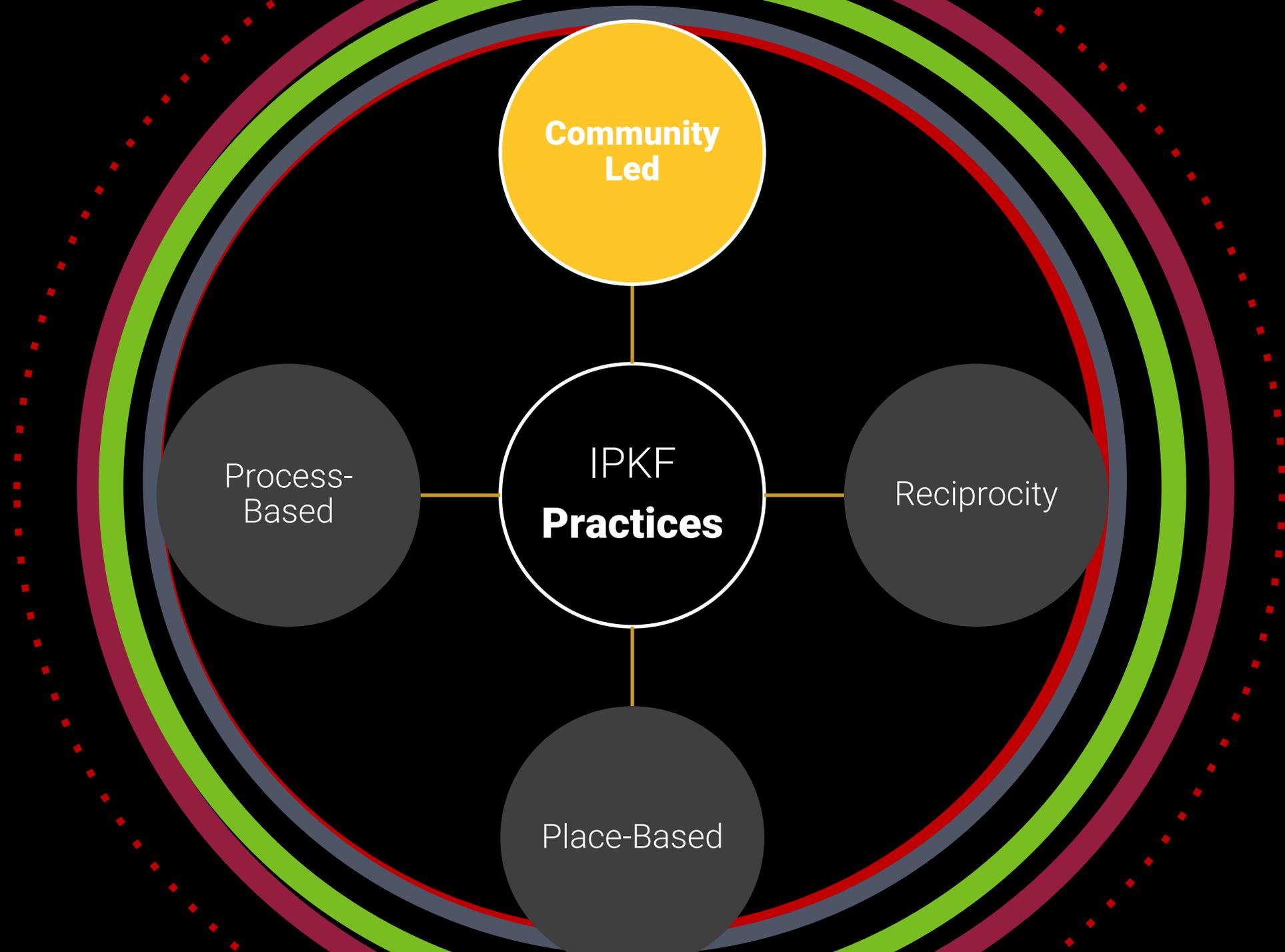
PROJECT ISILULEKE
This has been the greatest challenge that any...
The innovative self-test kit allows individuals...
and subsequent they want. A study using the...
and their self-test results and follow-up care...
to test help save lives.

WHO HELPED?
The project was supported by...
The project was supported by...
The project was supported by...

FREEZE-PREVENTIVE VACCINE CARRIER
When transporting vaccines to remote locations, health workers use frozen ice packs to cool their and maintain their potency. However, many cases, early vaccines, such as human papillomavirus, pneumonia, and rubella, are compromised if frozen, heating, mechanical damage and damage of risk for disease. During the week, Seattle-based global health innovator PATH designed a low-cost vaccine carrier that prevents accidental freezing during the last mile of vaccine delivery. Supporting rapid adoption in underserved countries, PATH released the carrier's design into the public domain. The first manufacturer of this life-saving design is located in India.



WHO HELPED?
The project was supported by...
The project was supported by...
The project was supported by...



Community
Led

Process-
Based

IPKF
Practices

Reciprocity

Place-Based

- **Welcoming campus**
- **Reducing invisibility**
- Indigenous faculty
- Multi-generational learning
- Places to gather
- Cross-cultural awareness

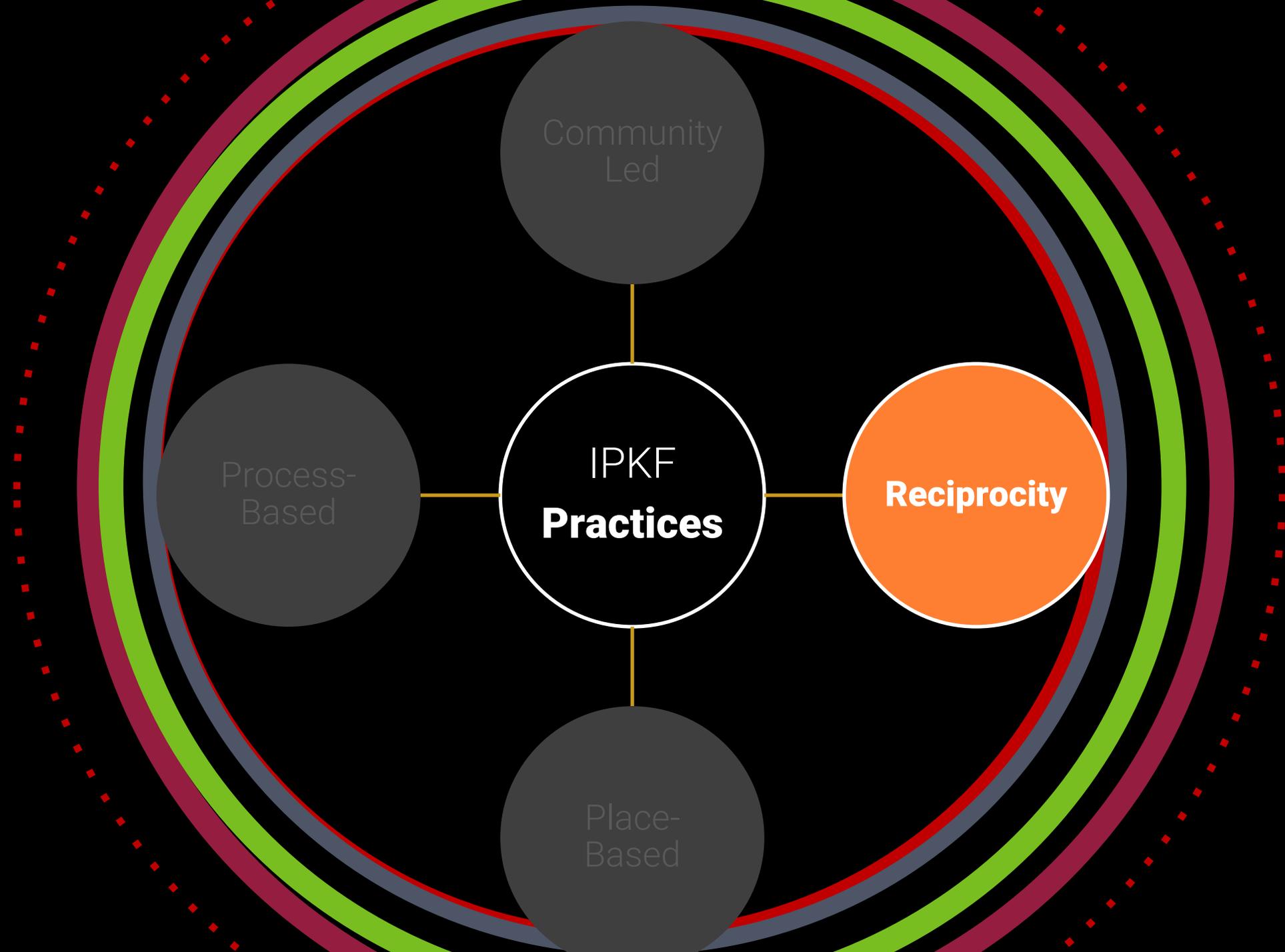


Community
Led

PRACTICE: **Expanded Process: Community Members**

Practitioners
+
Faculty
+
Students
+
Community

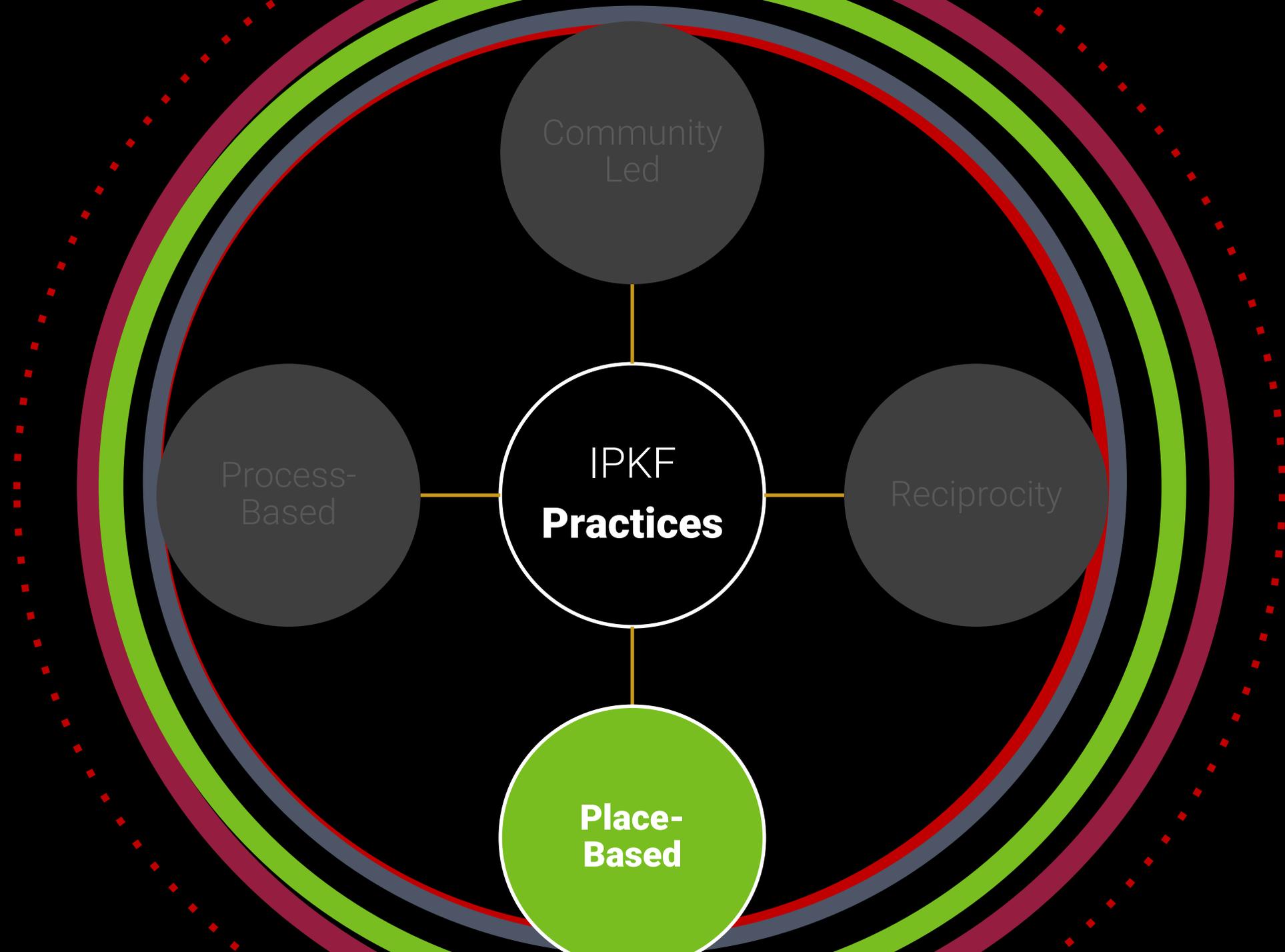




16 Design Proposals for ASU's Campuses

How to make Indigenous students and their kinship networks feel welcome?





Community
Led

Process-
Based

IPKF
Practices

Reciprocity

**Place-
Based**

Place-
Based

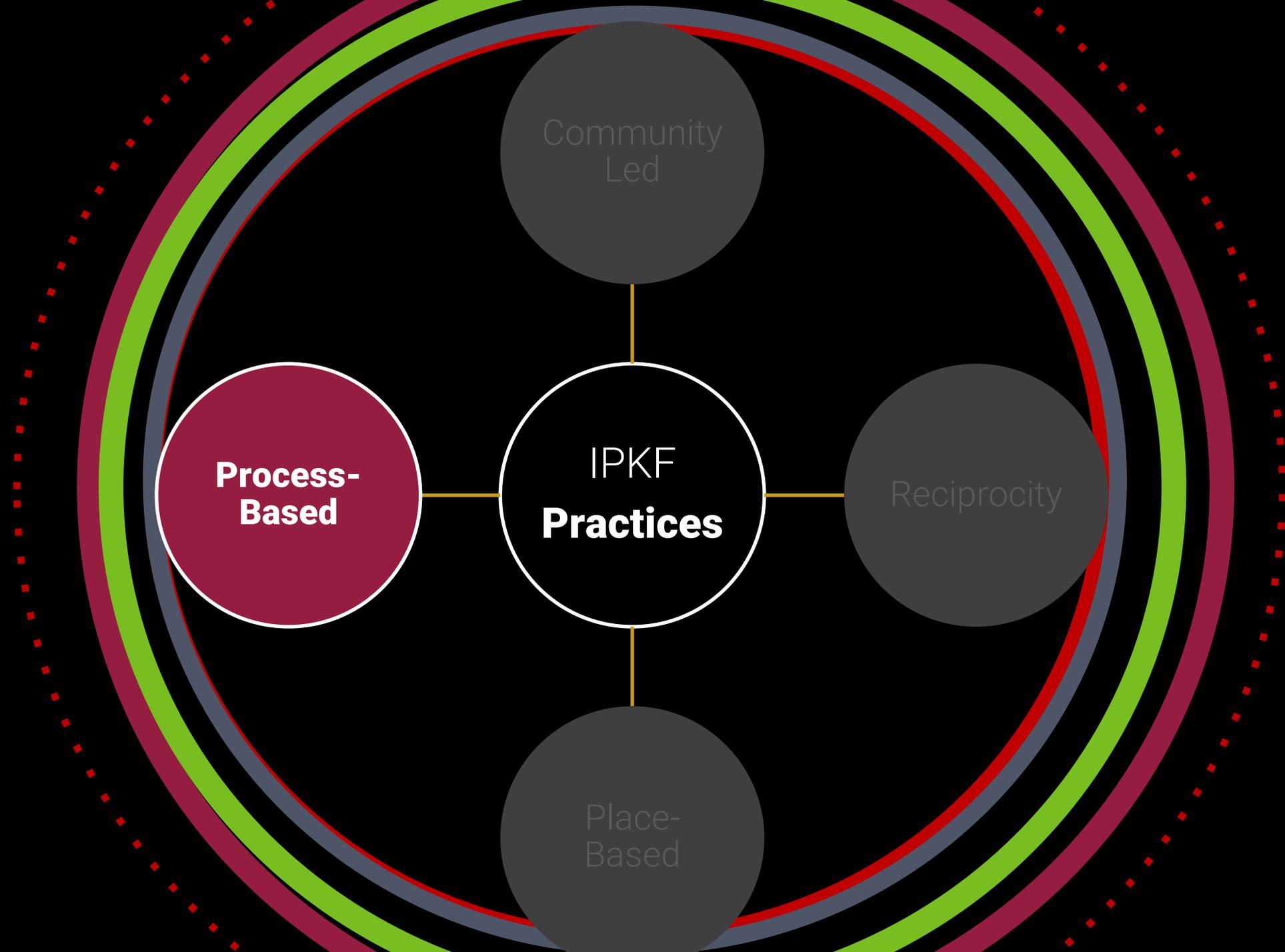
PRACTICE: **Tour and Listen with locals (lived experience)**



Place-
Based

PRACTICE: Recognize Deep History





Community
Led

**Process-
Based**

IPKF
Practices

Reciprocity

Place-
Based

Protocol

- Acknowledge territory
- Offer a meal
- Data sovereignty
- Honorariums



Process-
Based

PRACTICE Data + Qualitative Research



Action

Indigenous Placekeeping on Campus



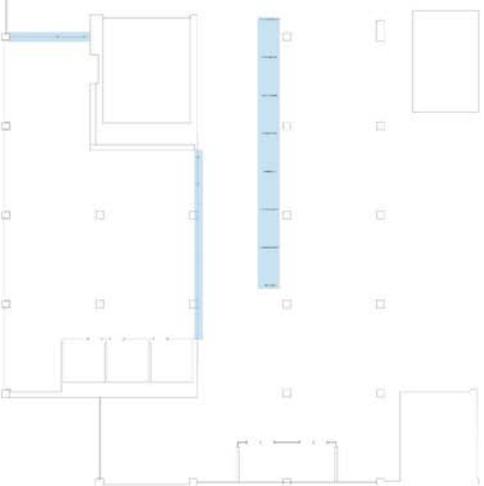
Build something
to change the world

16 Design Proposals for ASU's four campuses

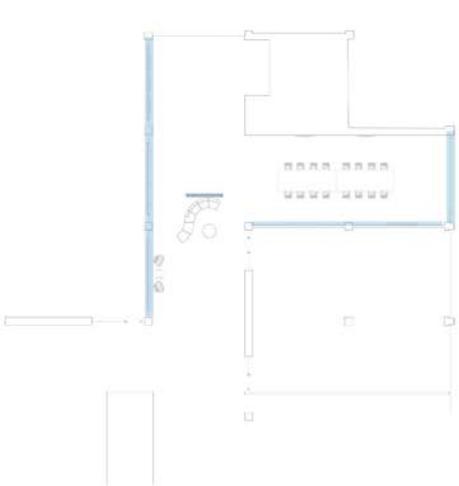
	design ideation	tempe	dt phx	poly	west
1	hayden library: indigenous design	■			
2	Indigenous center for leadership + elders lodge	■			
3	storytelling pavillion + gathering space	■	■	■	■
4	i'itoi (maze) agriculture center	■			
5	indigenous language greeting/welcome wall	■	□	□	□
6	sundevil 365 stadium	■			
7	keeping house: center for cultural preservation			■	
8	multilingual signage	■	■	■	■
9	interpretive walkways	□	□	■	□
10	art of local Indigenous artists	□	□	□	■
11	naturalistic playground + childcare	□	□	□	■
12	solar panel indigenous artwork	□	□	□	■
13	repurposing walls with Indigenous artwork	□	■	□	□
14	Indigenous art + media visitors center		■		
15	reflection + meditation installations	■	■	■	■
16	ASU policy: Indigenizing ASU's Design Aspirations	■	■	■	■

01 hayden library: indigenous design

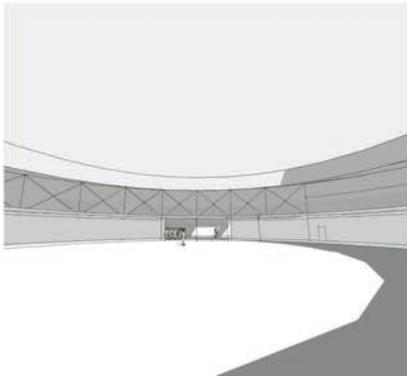
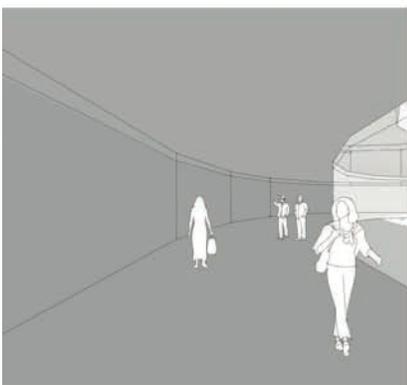
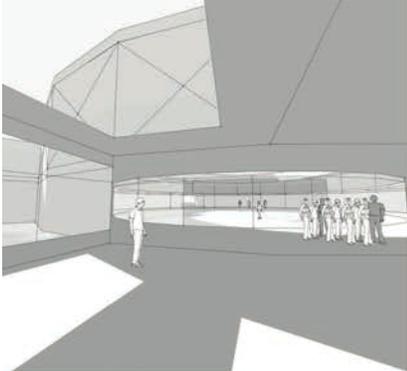
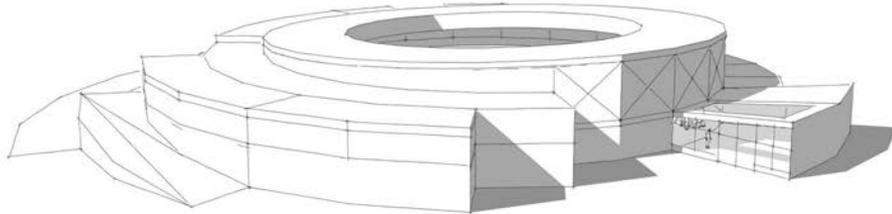
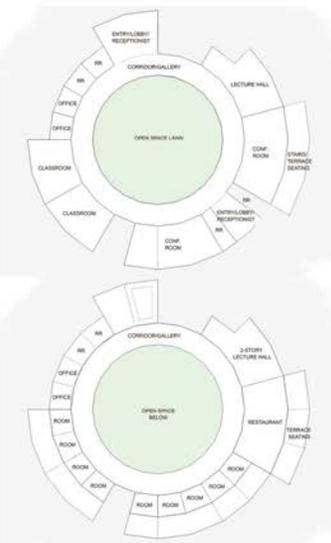
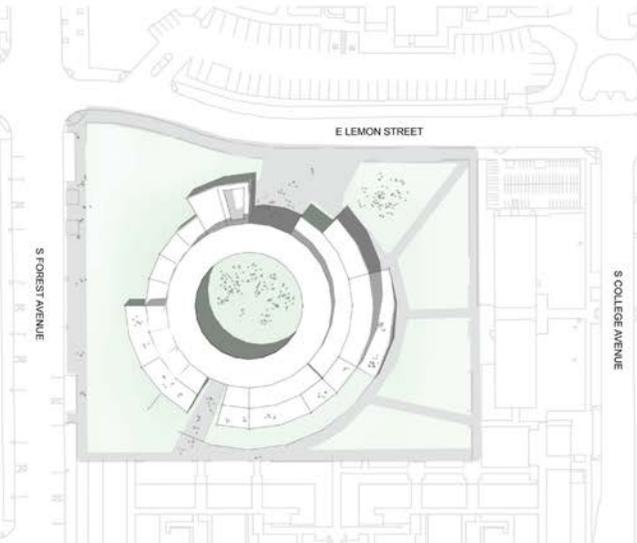
LEVEL 1 (SW) - AZ Reading room and main entrances



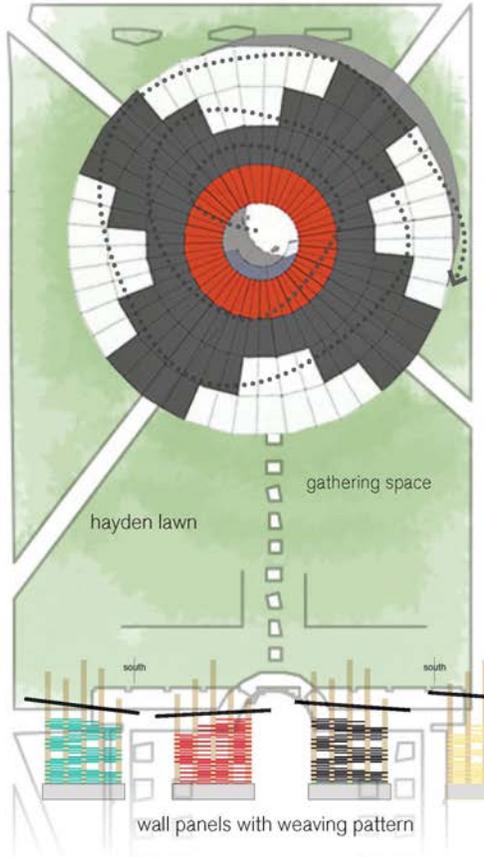
LEVEL 2 (NE) - Labriola library collection area



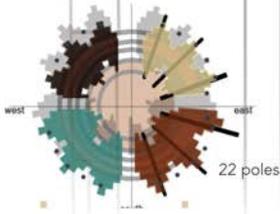
02 indigenous center for leadership + elders lodge



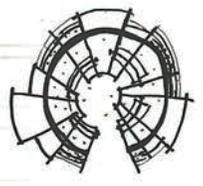
03 storytelling pavilion + gathering space



Conceptual Ideation Studies



Design Concept Exploration



keeping grounded



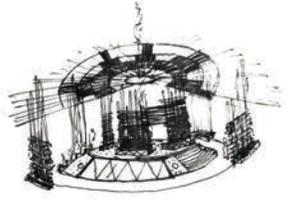
weaving aesthetic



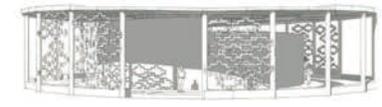
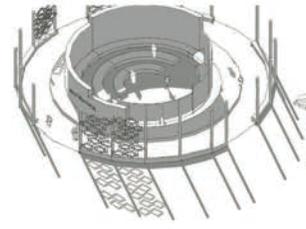
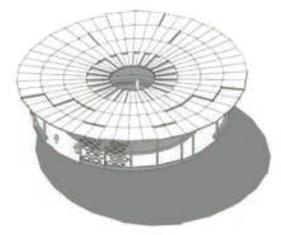
relationship with nature



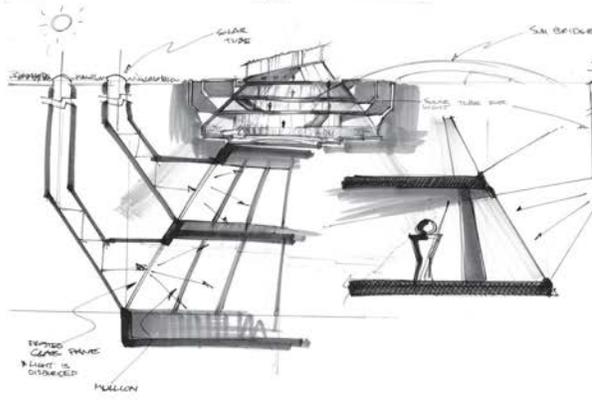
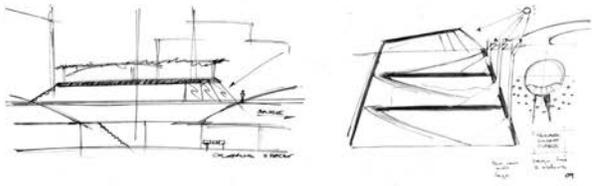
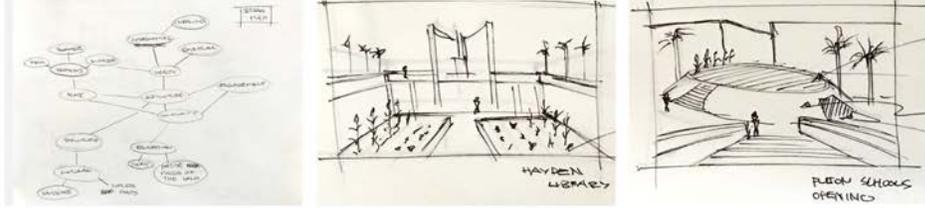
tribe's interrelationship



story-telling space



04 i'toi (maze) agricultural center

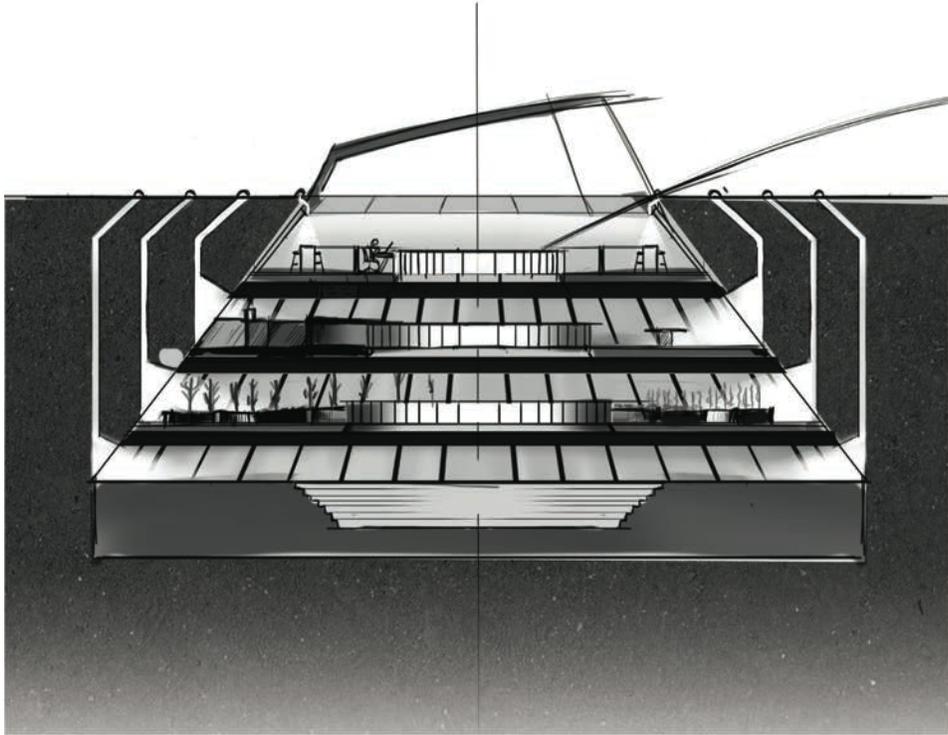


Level 1 - is dedicated to **congregation** and celebration as represented by the man/woman's birth into the physical world as told in the story of the "Man in the maze."

Level 2 - is dedicated to **education** which would be represented by a co-working space where students and faculty can work and collaborate.

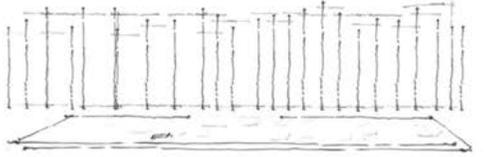
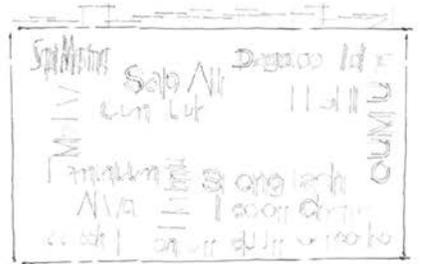
Level 3 - is dedicated to **rejuvenation** which is represented by a food court that serves healthy food and comfort food from Indigenous nations.

Level 4 - is dedicated to **celebration** which is represented by a place to grow edible and medicinal native crops for food, prayer and ceremonial purposes.

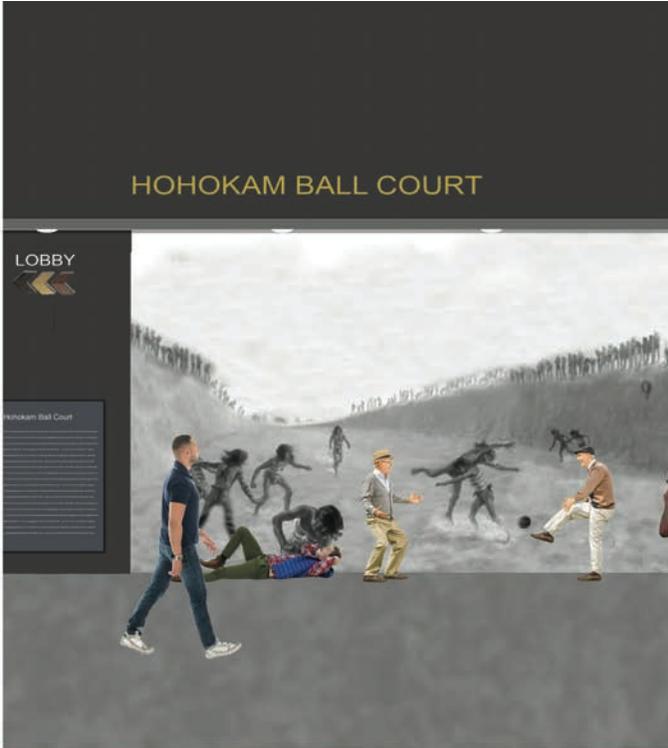
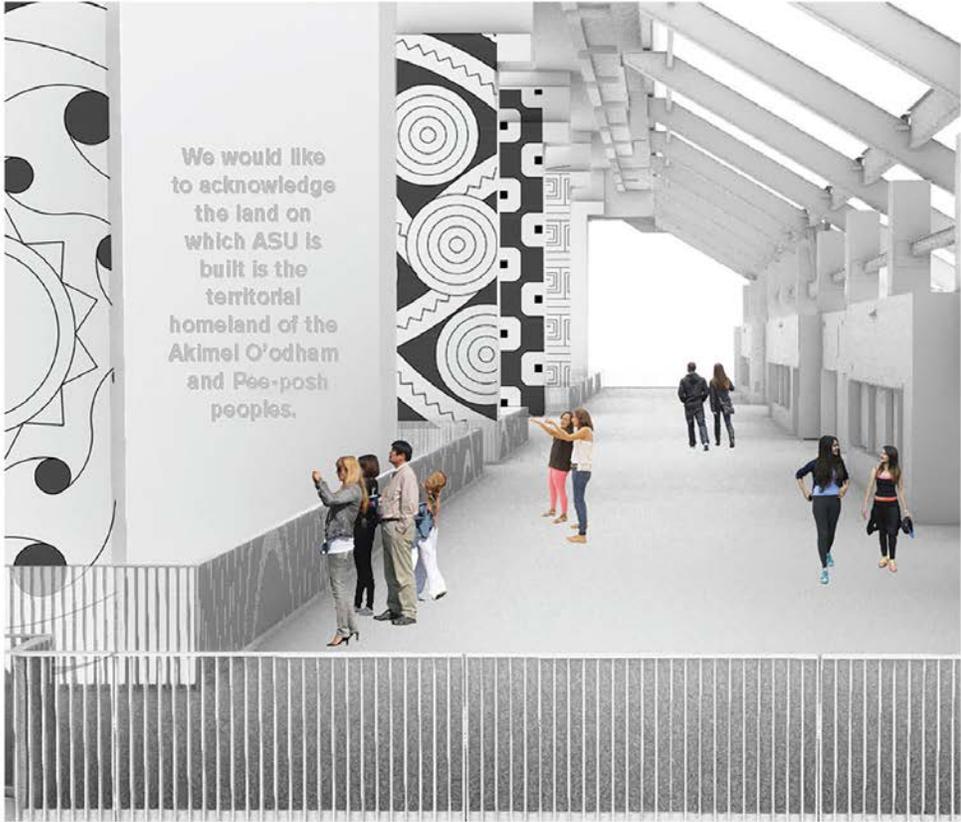


05 indigenous language greeting/welcome wall

Cocopah **Áwka** Fort Yuma Quechan **Kamughotmoovak** Gila River **Sap AIC**
 Havasupai **Gum-u** Hopi **Loloma** Hualapi **Gumyu** Kaibab Band of Paiute **Maik'w**
 Navajo **Yá'át'ééh** Pascua Yaqui **Lios em Chania** San Carlos Apache **Dagot'ee**
 San Juan Southern Paiute **Maik'w** Salt River Pima Maricopa **Sapi Ma'sma** Tohono
 O'otham **S~ke: a tas** White Mountain Apache **Dagot'ee** Yavapai Apache **Dagteh**
 Yavapai Prescott **Gum'yuu** Zuni Pueblo **Keshi**



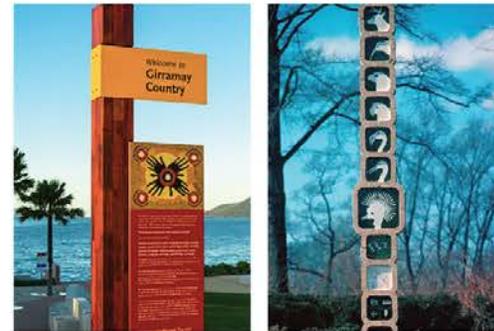
06 sun devil 365 stadium



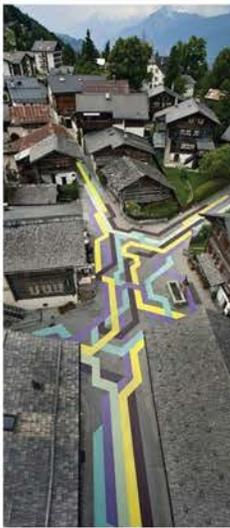
07 keeping house: a center for cultural preservation



08 multi-lingual signage



09 interpretive walkway



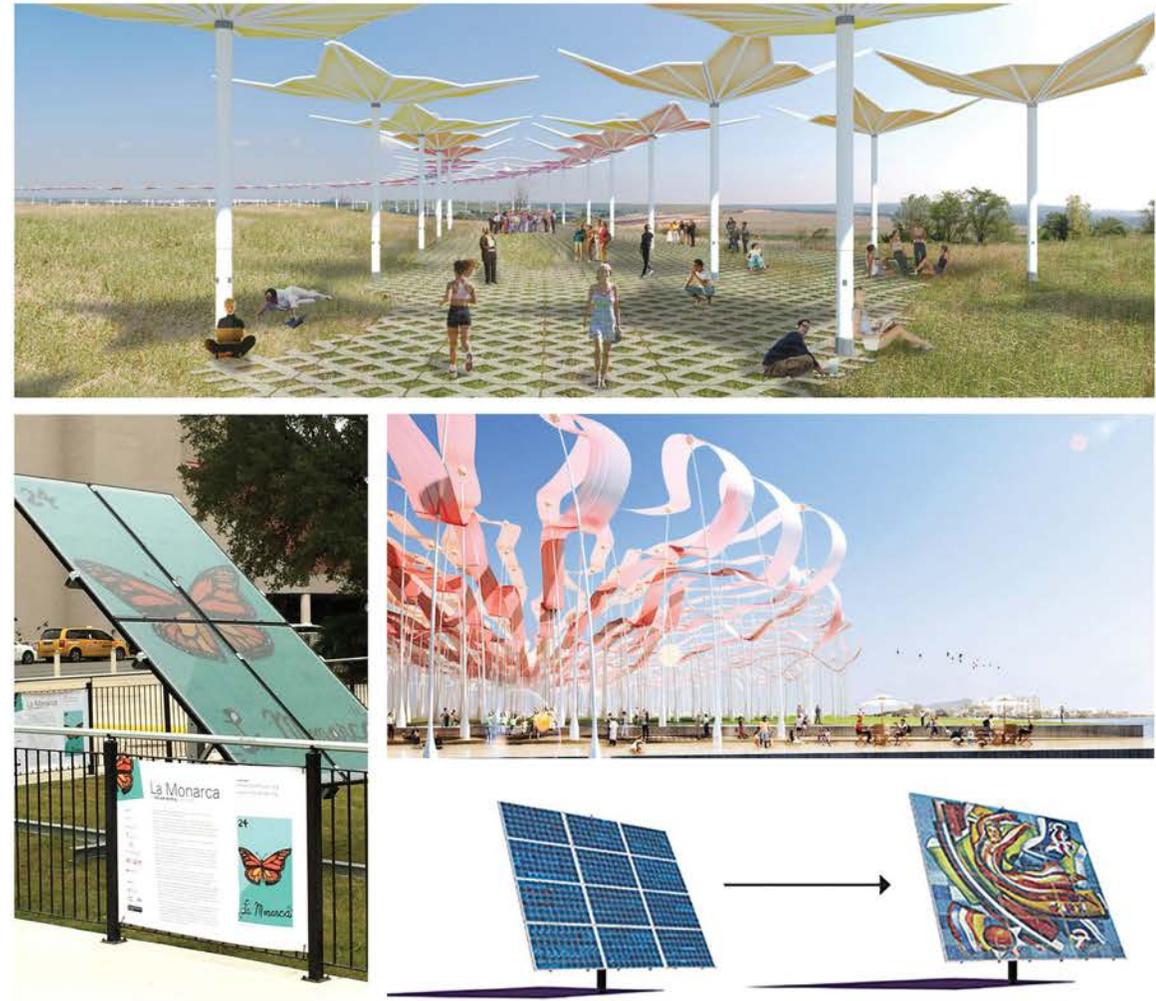
10 art from local indigenous artists



11 naturalistic playground + childcare



12 solar panel indigenous artwork



13 Indigenous artists re-purposing walls



14 Indigenous art & media visitors center



15 reflection + meditation installations



16 indigenizing ASU's design aspirations

01 leverage our place

ASU embraces its culture, socioeconomic and physical setting.

- ➔ Acknowledging local people of this land and recognizing that this campus is on Indigenous lands included on all course syllabi.

02 enable student success

ASU is committed to the success of each unique student.

- ➔ Using on campus TV screens to encourage Indigenous Students by proving simple words of encouragements in different Native languages. Creating a personal connection with each student.

03 transform society

ASU catalyzes social change by being connected to social needs.

- ➔ Incorporate more Indigenous issues and cultural history in class. Create a connection to Indigenous students through course work and lectures to address the issue of student invisibility among Indigenous students.

04 fuse intellectual disciplines

ASU creates knowledge by transcending academic disciplines.

- ➔ Introduce hands on or creative workshops for Indigenous students on each of ASU's four campuses that directly connects with Indigenous culture and/or history.

05 value entrepreneurship

ASU uses its knowledge and encourages innovation.

- ➔ Create more cross discipline collaboration course opportunities for Indigenous students. Working on projects or proposals with local native communities.

06 be socially embedded

ASU connects with communities through mutually beneficial partnerships.

- ➔ Bring in Indigenous elders to talk with students about the importance of education and what can be done to help Indigenous communities. Elders are important to Indigenous peoples which can create motivation for current or incoming students.

07 conduct use inspired research

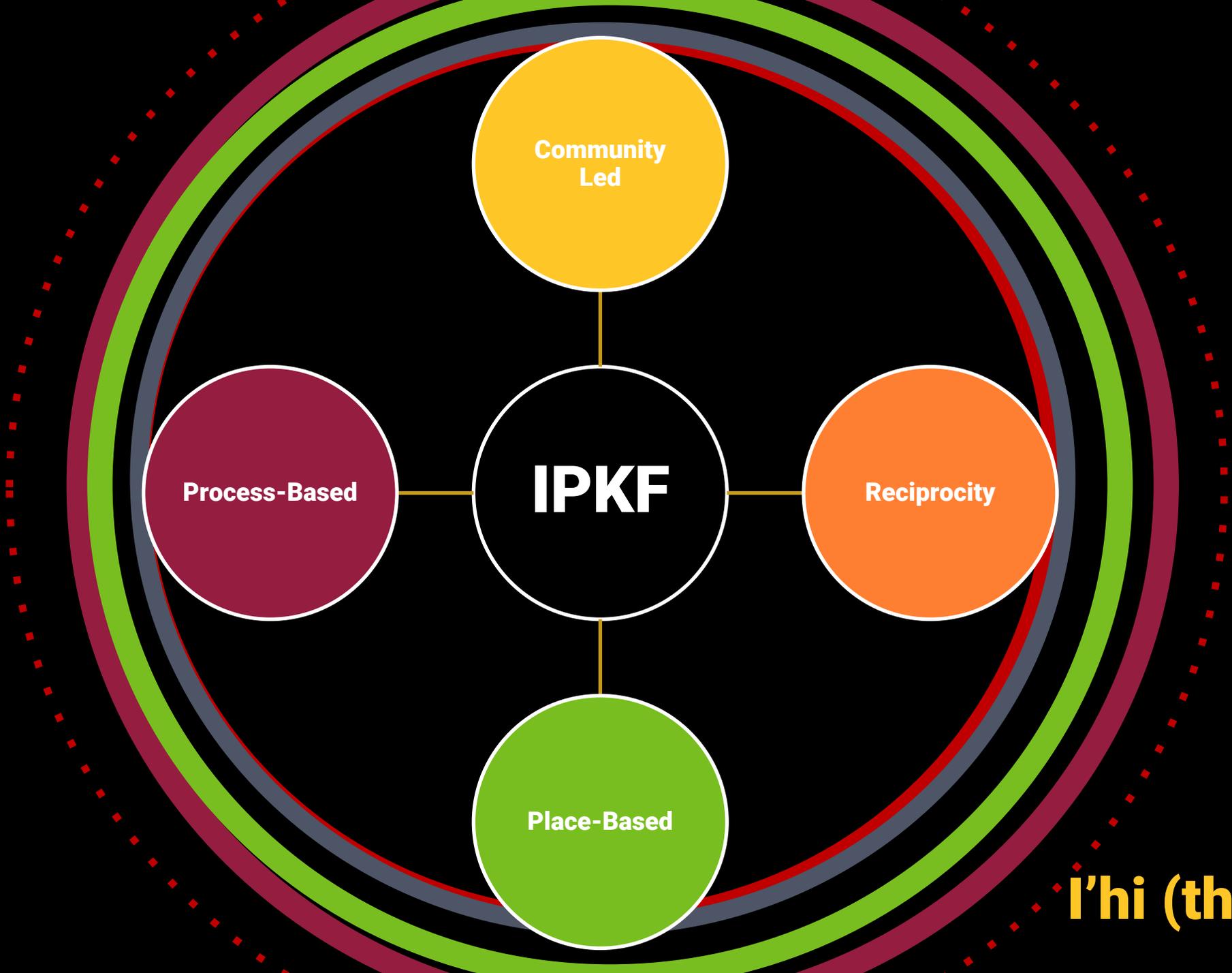
ASU research has purpose and impact.

- ➔ Create more ASU Native centered magazines to educate and connect with students on campuses, and/or create a one centralized magazine hub for students to work collectively with staff and surrounding Indigenous communities.

08 engage globally

ASU engages with people and issues locally, nationally and internationally.

- ➔ Conduct more Indigenous lecture series with Indigenous scholars, designers, writers, architects, contractors, etc. with all range of disciplines from all around the world.



l'hi (thank you)



Discussion

