



**BERKELEY CITY COUNCIL PUBLIC SAFETY COMMITTEE  
SPECIAL MEETING**

**BERKELEY CITY COUNCIL SPECIAL MEETING**

**Wednesday, July 17, 2019**

**12:00 PM**

1947 Center Street, Basement - Multi-Purpose Room

Committee Members:

Councilmembers Ben Bartlett, Susan Wengraf, and Rigel Robinson

**AGENDA**

**Roll Call**

**Public Comment on Non-Agenda Matters**

**Minutes for Approval**

*Draft minutes for the Committee's consideration and approval.*

**1. Minutes - June 3, 2019**

**Committee Action Items**

*The public may comment on each item listed on the agenda for action as the item is taken up. The Chair will determine the number of persons interested in speaking on each item. Up to ten (10) speakers may speak for two minutes. If there are more than ten persons interested in speaking, the Chair may limit the public comment for all speakers to one minute per speaker. Speakers are permitted to yield their time to one other speaker, however no one speaker shall have more than four minutes.*

*Following review and discussion of the items listed below, the Committee may continue an item to a future committee meeting, or refer the item to the City Council.*

## Committee Action Items

- 2. Adopt an Ordinance Amending Berkeley Municipal Code Chapter 2.99 to Prohibit City Use of Face Recognition Technology** *(Item Contains Revised Material)*  
**From: Councilmember Harrison**  
**Referred: May 28, 2019**  
**Due: October 29, 2019**  
**Recommendation:** Adopt an ordinance amending Berkeley Municipal Code Chapter 2.99 to prohibit the City from acquiring, retaining, requesting, accessing, or using: (1) any face recognition technology, or (2) any information obtained from face recognition technology.  
**Financial Implications:** See report  
Contact: Kate Harrison, Councilmember, District 4, 981-7140
- 3. Alternative Compliance Measures to Achieve Fire Safety in Existing Live/Work Spaces**  
**From: Councilmembers Robinson and Harrison**  
**Referred: May 13, 2019**  
**Due: October 28, 2019**  
**Recommendation:** Refer to the City Manager to develop alternative code compliance measures for nontraditional live/work spaces, in order to improve residential safety without displacing existing communities. Given the current shortage of affordable housing, Staff should consider how to enact a policy of leniency towards existing structures which may not be in complete compliance with city permits. Staff should seek methods to incentivize incremental safety renovations without exposing communities to eviction concerns.  
**Financial Implications:** Staff time  
Contact: Rigel Robinson, Councilmember, District 7, 981-7170
- 4. Decriminalizing Entheogenic Plants**  
**From: Councilmembers Robinson and Davila**  
**Referred: July 1, 2019**  
**Due: December 16, 2019**  
**Recommendation:** Adopt a Resolution decriminalizing Entheogenic Plants and Fungi such as mushrooms, cacti, iboga containing plants, and/or extracted combinations of plants similar to Ayahuasca; and limited to those containing the following types of compounds: indole amines, tryptamines, phenethylamines, by restricting any city funds or resources to assist in the enforcement of laws imposing criminal penalties for the use and possession of Entheogenic Plants by adults age 21 and over.  
**Financial Implications:** See report  
Contact: Rigel Robinson, Councilmember, District 7, 981-7170

## Unscheduled Items

*These items are not scheduled for discussion or action at this meeting. The Committee may schedule these items to the Action Calendar of a future Committee meeting.*

- None

## Items for Future Agendas

- Discussion of items to be added to future agendas

## Adjournment

~~~~~  
*This is a meeting of the Berkeley City Council Public Safety Committee. Since a quorum of the Berkeley City Council may actually be present to discuss matters with the Council Public Safety Committee, this meeting is being noticed as a special meeting of the Berkeley City Council as well as a Council Public Safety Committee meeting.*

*Written communications addressed to the Public Safety Committee and submitted to the City Clerk Department will be distributed to the Committee prior to the meeting.*

*This meeting will be conducted in accordance with the Brown Act, Government Code Section 54953. Any member of the public may attend this meeting. Questions regarding this matter may be addressed to Mark Numainville, City Clerk, 981-6900.*



### COMMUNICATION ACCESS INFORMATION:

This meeting is being held in a wheelchair accessible location. To request a disability-related accommodation(s) to participate in the meeting, including auxiliary aids or services, please contact the Disability Services specialist at 981-6418 (V) or 981-6347 (TDD) at least three business days before the meeting date. Attendees at public meetings are reminded that other attendees may be sensitive to various scents, whether natural or manufactured, in products and materials. Please help the City respect these needs.

~~~~~

I hereby certify that the agenda for this special meeting of the Berkeley City Council was posted at the display case located near the walkway in front of the Maudelle Shirek Building, 2134 Martin Luther King Jr. Way, as well as on the City's website, on July 11, 2019.

A handwritten signature in black ink that reads "Mark Numainville".

Mark Numainville, City Clerk

## Communications

*Communications submitted to City Council Policy Committees are on file in the City Clerk Department at 2180 Milvia Street, 1st Floor, Berkeley, CA.*



**BERKELEY CITY COUNCIL PUBLIC SAFETY COMMITTEE  
REGULAR MEETING MINUTES**

**BERKELEY CITY COUNCIL SPECIAL MEETING MINUTES**

**Monday, June 3, 2019  
10:30 AM**

2180 Milvia Street, 1st Floor - Cypress Room

Committee Members:

Councilmembers Ben Bartlett, Susan Wengraf, and Rigel Robinson

**Roll Call:** 10:37 a.m.

**Present:** Wengraf, Robinson, Bartlett

**Public Comment on Non-Agenda Matters:** 2 speakers.

**Minutes for Approval**

*Draft minutes for the Committee's consideration and approval.*

**1. Minutes for Approval - May 6, 2019**

**Action:** M/S/C (Wengraf/Robinson) to approve the minutes as presented.

**Vote:** All Ayes.

**Committee Action Items**

*The public may comment on each item listed on the agenda for action as the item is taken up. The Chair will determine the number of persons interested in speaking on each item. Up to ten (10) speakers may speak for two minutes. If there are more than ten persons interested in speaking, the Chair may limit the public comment for all speakers to one minute per speaker. Speakers are permitted to yield their time to one other speaker, however no one speaker shall have more than four minutes.*

*Following review and discussion of the items listed below, the Committee may continue an item to a future committee meeting, or refer the item to the City Council.*

## Committee Action Items

**2. Referral Response: Update on Various Referrals and Recommendations Regarding Stop Data Collection, Data Analysis and Community Engagement**

**From: City Manager**

**Referred: April 30, 2019**

**Due: October 15, 2019**

**Recommendation:** Review and provide feedback on the Berkeley Police Department responses to inter-related Council and Police Review Commission referrals, reports and recommendations, including the Center for Policing Equity report recommendations, regarding stop data collection, data analysis, community engagement, and related topics.

**Financial Implications:** See report

Contact: Andrew Greenwood, Police, 981-5900

**Action:** 9 speakers. M/S/C (Bartlett/Robinson) to send the item back to the City Council with a qualified positive recommendation for the Mayor to convene the task force, as outlined in Councilmember Harrison's amended referral, in an expeditious manner and to request that adequate budget resources be allocated to allow the task force to complete its work.

**Vote:** All Ayes.

**3. Alternative Compliance Measures to Achieve Fire Safety in Existing Live/Work Spaces**

**From: Councilmembers Robinson and Harrison**

**Referred: May 13, 2019**

**Due: October 28, 2019**

**Recommendation:** Refer to the City Manager to develop alternative code compliance measures for nontraditional live/work spaces, in order to improve residential safety without displacing existing communities. Given the current shortage of affordable housing, Staff should consider how to enact a policy of leniency towards existing structures which may not be in complete compliance with city permits. Staff should seek methods to incentivize incremental safety renovations without exposing communities to eviction concerns.

**Financial Implications:** Staff time

Contact: Rigel Robinson, Councilmember, District 7, 981-7170

**Action:** The item was continued to the next meeting – July 1, 2019.

## Committee Action Items

**4. Recommendation to Install an Outdoor Public Warning System (Sirens) and Incorporate It Into a Holistic Emergency Alerting Plan**

**From: Disaster and Fire Safety Commission**

**Referred: May 14, 2019**

**Due: October 29, 2019**

**Recommendation:** We recommend that City of Berkeley immediately begin the process to purchase, install, and maintain an outdoor public warning system (sirens) as a supplement to other alert and warning technologies within our boundaries and coordinated with abutting jurisdictions and Alameda County.

This installation should be accompanied by the following: - ongoing outreach and education so that the public will understand the meaning of the sirens and what to do when they hear a siren; - development of a holistic alert protocol, incorporating sirens as an additional option among the available suite of alerting methods; - staff training and drills on alerting procedures; - development of a testing and maintenance plan that will ensure the system is fully operational while avoiding unnecessary or excessive noise pollution in the City; - outreach to deaf and hard of hearing residents to encourage them to opt-in for alerting that meets their communication needs. This may include distributing weather radios or other in-home devices with accessibility options for people with disabilities.

This recommendation does not specify the number, type, or location of sirens; City staff should determine the most cost-effective system that achieves the goals described in this recommendation. This may include either mobile or fixed-location sirens.

**Financial Implications:** See report

Contact: Keith May, Commission Secretary, 981-3473

**Action:** 2 speakers. M/S/C (Wengraf/Robinson) to recommend that the report issued by the Disaster and Fire Safety Commission be submitted to the City Council with a Positive Recommendation.

**Vote:** All Ayes.

**5. Adopt an Ordinance Amending Berkeley Municipal Code Chapter 2.99 to Prohibit City Use of Face Recognition Technology**

**From: Councilmember Harrison**

**Referred: May 28, 2019**

**Due: November 12, 2019**

**Recommendation:** Adopt an ordinance amending Berkeley Municipal Code Chapter 2.99 to prohibit the City from acquiring, retaining, requesting, accessing, or using: (1) any face recognition technology, or (2) any information obtained from face recognition technology.

**Financial Implications:** See report

Contact: Kate Harrison, Councilmember, District 4, 981-7140

**Action:** The item was continued to the next meeting – July 1, 2019.

## Unscheduled Items

- None

## Items for Future Agendas

- None

## Adjournment

**Action:** M/S/C (Wengraf/Bartlett) to adjourn the meeting.

**Vote:** All Ayes

Adjourned at 12:26 p.m.

I hereby certify that this is a true and correct record of the Public Safety Committee meeting held on June 3, 2019.

---

Michael MacDonald, Assistant City Clerk





Kate Harrison  
Councilmember District 4

ACTION CALENDAR  
June 11, 2019

To: Honorable Mayor and Members of the City Council  
 From: Councilmember Harrison  
 Subject: Adopt an Ordinance Amending Berkeley Municipal Code Chapter 2.99 to Prohibit City Use of Face Recognition Technology

RECOMMENDATION

Adopt an ordinance amending Berkeley Municipal Code Chapter 2.99 to prohibit the City from acquiring, retaining, requesting, accessing, or using: (1) any face recognition technology, or (2) any information obtained from face recognition technology.

BACKGROUND

The City of Berkeley was the first City in California to adopt a comprehensive Ordinance regulating City Departments' acquisition of surveillance technology (Ord. 7592-NS, 2018). The legislation, adopted unanimously, recognizes that surveillance technology is inherently dangerous to civil liberties, and establishes a requirement that the City proactively establish why proposed surveillance technology is in the public interest and request Council permission to acquire it.

In adopting its own Acquisition of Surveillance Technology Ordinance modeled upon Berkeley's, the San Francisco Board of Supervisors recently became the first city in the United States to also prohibit city departments' from acquiring, retaining, requesting, accessing, or using of face recognition technology, except at the federally regulated San Francisco Airport and Port. Face recognition technology means "an automated or semi-automated process that assists in identifying or verifying an individual based on an individual's face."<sup>1</sup>

It is in the public interest for the City of Berkeley to amend its existing Surveillance Technology Ordinance to include a ban of City use of face recognition technology. There are a number of essential constitutional reasons why government use of this specific technology is incompatible with the people's civil liberties:

---

<sup>1</sup> City and County of San Francisco, Board of Supervisors, "Administrative Code - Acquisition of Surveillance Technology," May 21, 2019, <https://sfgov.legistar.com/LegislationDetail.aspx?ID=3850006&GUID=12FC5DF6-AAC9-4F4E-8553-8F0CD0EBD3F6>.

1. Government use of face recognition technology for identifying or tracking individuals or groups *en masse* for criminal and civil purposes flies in the face of the fundamental principle underlying the Fourth Amendment to the United States Constitution. The amendment clearly prohibits federal, state and local governments from engaging in mass surveillance of their citizens.<sup>2</sup>

Facial recognition technology differs from stationary surveillance cameras in that it eliminates the human and judicial element behind the existing warrant system by which governments must prove that planned surveillance is both constitutional and sufficiently narrow to protect targets' and bystanders' fundamental rights to privacy while also simultaneously providing the government with the ability to exercise its duties.

Facial recognition technology automates the search, seizure and analysis process that was heretofore pursued on a narrow basis through stringent constitutionally-established and human-centered oversight in the judiciary branch. Due to the inherent dragnet nature of facial recognition technology, governments cannot reasonably support by oath or affirmation the *particular* persons or things to be seized. The programmatic automation of surveillance fundamentally undermines the community's liberty.

With respect to the Fourth Amendment, in practice, facial recognition technology's sweeping nature has already proven extremely ineffective at applying narrowly tailored surveillance. For example, according to the American Civil Liberties Union, in 2018 Amazon's technology "incorrectly matched 28 members of Congress, identifying them as other people who have been arrested for a crime...[t]he false matches were disproportionately of people of color, including six members of the Congressional Black Caucus, among them civil rights legend Rep. John Lewis (D-Ga.)."<sup>3</sup>

---

<sup>2</sup> The Fourth Amendment reads:

"The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no warrants shall issue, but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized."

See Fourth Amendment to the United States Constitution, Cornell Law School Legal Information Institute, [https://www.law.cornell.edu/constitution/fourth\\_amendment](https://www.law.cornell.edu/constitution/fourth_amendment).

<sup>3</sup> Jacob Snow, "Amazon's Face Recognition Falsely Matched 28 Members of Congress With Mugshots," American Civil Liberties Union, July 26, 2018, <https://www.aclu.org/blog/privacy-technology/surveillance-technologies/amazons-face-recognition-falsely-matched-28>.

While it is easy to write off the Amazon example, along with other examples of the grave issues of facial recognition technology by looking at the technology's shortcomings as merely an engineering or temporary problem, in fact, the technology poses a fundamental Fourth Amendment constitutional problem.

2. Government acquisition and use of mass surveillance presents a fundamental threat to the community's First Amendment right to exercise their freedom of speech, including through assembly, and petitions to the government for a redress of grievances.<sup>4</sup>

Brian Hofer, the Executive Director of Secure Justice, and Matt Cagle, a Technology and Civil Liberties Attorney at the ACLU of Northern California, point out in a recent editorial that there is evidence from the 1970s of local Bay Area governmental entities, such as the San Francisco Police Department, amassing "intelligence files on over 100,000 people, including civil rights demonstrators, union members, and anti-war activists." They note that while these intelligence files took decades to collect, authorities using face recognition technology today, "can stockpile information on 100,000 residents in a few hours."<sup>5</sup>

Government face recognition surveillance will likely have a chilling effect on public engagement. The City of Berkeley can ill-afford to acquire and use technology that has the potential to circumscribe citizens' essential First Amendment rights.

These fundamental constitutional deficiencies with regard to government acquisition and use of face recognition technology necessitates that the Council move proactively to prohibit use of such technology by the City of Berkeley.

#### FINANCIAL IMPLICATIONS

The Ordinance will prevent investment in expensive face recognition technology.

#### ENVIRONMENTAL SUSTAINABILITY

The Ordinance is in line with the City's Climate goals by preventing the use of carbon-intensive computing resources for processing bulk facial data.

---

<sup>4</sup> See Fourth Amendment to the United States Constitution, Cornell Law School Legal Information Institute, [https://www.law.cornell.edu/constitution/first\\_amendment](https://www.law.cornell.edu/constitution/first_amendment).

<sup>5</sup> Matt Cagle and Brian Hofer, "New surveillance oversight law keeps communities safe and redefines tech leadership," San Francisco Examiner, May 8, 2019, <https://www.sfexaminer.com/opinion/new-surveillance-oversight-law-keeps-communities-safe-and-redefines-tech-leadership/>.

CONTACT PERSON

Councilmember Kate Harrison, Council District 4, 510-981-7140

ATTACHMENTS

1. Proposed Ordinance Amending Berkeley Municipal Code Chapter 2.99 to Prohibit City Use of Face Recognition Technology

ORDINANCE NO. -N.S.

AMENDING BERKELEY MUNICIPAL CODE CHAPTER 2.99 TO PROHIBIT CITY USE  
OF FACE RECOGNITION TECHNOLOGY

BE IT ORDAINED by the Council of the City of Berkeley as follows:

Section 1. That the Berkeley Municipal Code is amended to read as follows:

**2.99.020 Definitions**

The following definitions apply to this Chapter:

1. "Surveillance Technology" means an electronic device, system utilizing an electronic device, or similar technological tool used, designed, or primarily intended to collect audio, electronic, visual, location, thermal, olfactory, biometric, or similar information specifically associated with, or capable of being associated with, any individual or group. Examples of covered Surveillance Technology include, but are not limited to: cell site simulators (Stingrays); automatic license plate readers; body worn cameras; gunshot detectors (ShotSpotter); facial recognition software; thermal imaging systems, except as allowed under Section 1(d); social media analytics software; gait analysis software; and video cameras that record audio or video and can remotely transmit or can be remotely accessed.

"Surveillance Technology" does not include the following devices or hardware, unless they have been equipped with, or are modified to become or include, a Surveillance Technology as defined in Section 1 (above):

- a. Routine office hardware, such as televisions, computers, **mobile devices**, and printers, that is in widespread public use and will not be used for any surveillance functions;
- b. Handheld Parking Citation Devices, that do not automatically read license plates;
- c. Manually-operated, portable digital cameras, audio recorders, and video recorders that are not to be used remotely and whose functionality is limited to manually capturing, viewing, editing and downloading video and/or audio recordings, but not including body worn cameras;
- d. Devices that cannot record or transmit audio or video or be remotely accessed, such as image stabilizing binoculars or night vision goggles or thermal imaging cameras used for fire operations, search and rescue operations and missing person searches, and equipment used in active searches for wanted suspects;

e. Manually-operated technological devices that are not designed and will not be used to surreptitiously collect surveillance data, such as two-way radios, email systems and city-issued cell phones;

f. Municipal agency databases;

g. Medical equipment used to diagnose, treat, or prevent disease or injury, including electrocardiogram machines;

h. Cybersecurity capabilities, technologies and systems used by the City of Berkeley Department of Information Technology to predict, monitor for, prevent, and protect technology infrastructure and systems owned and operated by the City of Berkeley from potential cybersecurity events and cyber-forensic based investigations and prosecutions of illegal computer based activity;

i. Stationary security cameras affixed to City property or facilities.

2. "Surveillance Technology Report" means an annual written report by the City Manager covering all of the City of Berkeley's Surveillance Technologies that includes all of the following information with regard to each type of Surveillance Technology:

a. Description: A description of all non-privileged and non-confidential information about use of the Surveillance Technology, including but not limited to the quantity of data gathered and sharing of data, if any, with outside entities. If sharing has occurred, the report shall include general, non-privileged and non-confidential information about recipient entities, including the names of the entities and purposes for such sharing;

b. Geographic Deployment: Where applicable, non-privileged and non-confidential information about where the surveillance technology was deployed geographically;

c. Complaints: A summary of each complaint, if any, received by the City about the Surveillance Technology;

d. Audits and Violations: The results of any non-privileged internal audits, any information about violations or potential violations of the Surveillance Use Policy, and any actions taken in response;

e. Data Breaches: Non-privileged and non-confidential information about any data breaches or other unauthorized access to the data collected by the surveillance technology, including information about the scope of the breach and the actions taken in response;

f. Effectiveness: Information that helps the community assess whether the Surveillance Technology has been effective in achieving its identified outcomes;

g. Costs: Total annual costs for the Surveillance Technology, including personnel and other ongoing costs.

3. "Surveillance Acquisition Report" means a publicly-released written report produced prior to acquisition or to proposed permanent use after use in Exigent Circumstances pursuant to Section 2.99.040 (2), of a type of Surveillance Technology that includes the following:

a. Description: Information describing the Surveillance Technology and how it works, including product descriptions from manufacturers;

b. Purpose: Information on the proposed purpose(s) for the Surveillance Technology;

c. Location: The general location(s) it may be deployed and reasons for deployment;

d. Impact: An assessment identifying potential impacts on civil liberties and civil rights including but not limited to potential disparate or adverse impacts on any communities or groups;

e. Mitigation: Information regarding technical and procedural measures that can be implemented to appropriately safeguard the public from any impacts identified in subsection (d);

f. Data Types and Sources: A list of the sources of data proposed to be collected, analyzed, or processed by the Surveillance Technology, including "open source" data;

g. Data Security: Information about the steps that can be taken to ensure adequate security measures to safeguard the data collected or generated from unauthorized access or disclosure;

h. Fiscal Cost: The fiscal costs for the Surveillance Technology, including initial purchase, personnel and other ongoing costs, including to the extent practicable costs associated with compliance with this and other reporting and oversight requirements, as well as any current or potential sources of funding;

i. Third Party Dependence and Access: Whether use or maintenance of the technology will require data gathered by the technology to be handled or stored by a third-party vendor on an ongoing basis, and whether a third party may have access to such data or may have the right to sell or otherwise share the data in aggregated, disaggregated, raw or any other formats;

j. Alternatives: A summary and general assessment of potentially viable alternative methods (whether involving the use of a new technology or not), if any, considered before deciding to propose acquiring the Surveillance Technology; and

k. Experience of Other Entities: To the extent such information is available, a summary of the experience of comparable government entities with the proposed technology, including any unanticipated financial or community costs and benefits, experienced by such other entities.

4. "Surveillance Use Policy" means a publicly-released and legally-enforceable policy for use of each type of the Surveillance Technology that shall reflect the Surveillance Acquisition Report produced for that Surveillance Technology and that at a minimum specifies the following:

a. Purpose: The specific purpose(s) that the Surveillance Technology is intended to advance;

b. Authorized Use: The uses that are authorized, the rules and processes required prior to such use, and the uses that are prohibited;

c. Data Collection: Information collection that is allowed and prohibited. Where applicable, list any data sources the technology will rely upon, including "open source" data;

d. Data Access: A general description of the title and position of the employees and entities authorized to access or use the collected information, and the rules and processes required prior to access or use of the information, and a description of any and all of the vendor's rights to access and use, sell or otherwise share information for any purpose;

e. Data Protection: A general description of the safeguards that protect information from unauthorized access, including encryption and access control mechanisms, and safeguards that exist to protect data at the vendor level;

f. Civil Liberties and Rights Protection: A general description of the safeguards that protect against the use of the Surveillance Technology and any data resulting from its use in a way that violates or infringes on civil rights and liberties, including but not limited to potential disparate or adverse impacts on any communities or groups;

g. Data Retention: The time period, if any, for which information collected by the surveillance technology will be routinely retained, the reason such retention period is appropriate to further the purpose(s), the process by which the information is regularly deleted after that period lapses, and the specific conditions that must be met to retain information beyond such period;

h. Public Access: How collected information may be accessed or used by members of the public;



i. Third Party Data Sharing: If and how other City or non-City Entities can access or use the information, including any required justification or legal standard necessary to do so and any obligations imposed on the recipient of the information;

j. Training: Training required for any employee authorized to use the Surveillance Technology or to access information collected;

k. Auditing and Oversight: Mechanisms to ensure that the Surveillance Use Policy is followed, technical measures to monitor for misuse, and the legally enforceable sanctions for intentional violations of the policy; and

l. Maintenance: The mechanisms and procedures to ensure maintenance of the security and integrity of the Surveillance Technology and collected information.

5. "Exigent Circumstances" means the City Manager's good faith belief that an emergency involving imminent danger of death or serious physical injury to any person, or imminent danger of significant property damage, requires use of the Surveillance Technology or the information it provides.

6. "Face Recognition Technology" means an automated or semi-automated process that assists in identifying or verifying an individual based on an individual's face.

Section 2. That the Berkeley Municipal Code is amended to read as follows:

### **2.99.030 City Council Approval Requirement**

1. The City Manager must obtain City Council approval, except in Exigent Circumstances, by placing an item on the Action Calendar at a duly noticed meeting of the City Council prior to any of the following:

a. Seeking, soliciting, or accepting grant funds for the purchase of, or in-kind or other donations of, Surveillance Technology;

b. Acquiring new Surveillance Technology, including but not limited to procuring such technology without the exchange of monies or consideration;

c. Using new Surveillance Technology, or using Surveillance Technology previously approved by the City Council for a purpose, or in a manner not previously approved by the City Council; or

d. Entering into an agreement with a non-City entity to acquire, share or otherwise use Surveillance Technology or the information it provides, or expanding a vendor's permission to share or otherwise use Surveillance Technology or the information it provides.

2. The City Manager must present a Surveillance Use Policy for each Surveillance Technology to the Police Review Commission, prior to adoption by the City Council. The Police Review Commission shall also be provided with the corresponding Surveillance Acquisition Report that had been presented to council for that Surveillance Technology. No later than 30 days after receiving a Surveillance Use Policy for review, the Police Review Commission must vote to recommend approval of the policy, object to the proposal, recommend modifications, or take no action. Neither opposition to approval of such a policy, nor failure by the Police Review Commission to act, shall prohibit the City Manager from proceeding with its own review and potential adoption.

3. The City Manager must submit for review a Surveillance Acquisition Report and obtain City Council approval of a Surveillance Use Policy prior to engaging in any of the activities described in subsections (1) (a)-(d).

4. Notwithstanding any other provision of this Chapter, it shall be unlawful for any City staff to obtain, retain, request, access, or use: i) any Face Recognition Technology; or ii) any information obtained from Face Recognition Technology. City staff's inadvertent or unintentional receipt, access to, or use of any information obtained from Face Recognition Technology shall not be a violation of this subsection 4., provided that:

a. City staff does not request or solicit its receipt, access to, or use of such information; and

b. City staff logs such receipt, access to, or use in its Annual Surveillance Report.

c. City staff receives evidence that utilizes Facial Recognition Technology during the investigation of a crime, provided that it is obtained without solicitation.

#### **2.99.040 Temporary Acquisition and Use of Surveillance Equipment**

Notwithstanding the provisions of this Chapter, the City Manager may borrow, acquire and/or temporarily use Surveillance Technology in Exigent Circumstances without following the requirements in Sections [2.99.030](#) and [2.99.040](#). However, if the City Manager borrows, acquires or temporarily uses Surveillance Technology in Exigent Circumstances he or she must take all of the following actions:

1. Provide written notice of that acquisition or use to the City Council within 30 days following the commencement of such Exigent Circumstance, unless such information is confidential or privileged;
2. If it is anticipated that the use will continue beyond the Exigent Circumstance, submit a proposed Surveillance Acquisition Report and Surveillance Use Policy, as applicable, to the City Council within 90 days following the borrowing, acquisition or temporary use, and receive approval, as applicable, from the City Council pursuant to Sections [2.99.030](#) and [2.99.040](#); and
3. Include the Surveillance Technology in the City Manager's next annual Surveillance Technology Report.

#### **2.99.050 Compliance for Existing Surveillance Technology**

The City Manager shall submit to the Action Calendar for the first City Council meeting in November of 2018 a Surveillance Acquisition Report and a proposed Surveillance

Use Policy for each Surveillance Technology possessed or used prior to the effective date of the ordinance codified in this Chapter.

**2.99.060 Determination by City Council that Benefits Outweigh Costs and Concerns**

The City Council shall only approve any action described in Section [2.99.030](#), [2.99.040](#), or Section [2.99.050](#) of this Chapter after making a determination that the benefits to the community of the Surveillance Technology, used according to its Surveillance Use Policy, outweigh the costs; that the proposal will appropriately safeguard civil liberties and civil rights to the maximum extent possible while serving its intended purposes; and that, in the City Council's judgment, no feasible alternative with similar utility and a lesser impact on civil rights or civil liberties could be implemented.

**2.99.070 Oversight Following City Council Approval**

The City Manager must submit to the Council Action Calendar a written Surveillance Technology Report, covering all of the City's Surveillance Technologies, annually at the first regular Council meeting in November. After review of the Surveillance Technology Report, Council may make modifications to Surveillance Use Policies.

**2.99.080 Public Access to Surveillance Technology Contracts**

To the extent permitted by law, the City shall continue to make available to the public all of its surveillance-related contracts, including related non-disclosure agreements, if any.

**2.99.090 Enforcement**

This Chapter does not confer any rights upon any person or entity other than the City Council to cancel or suspend a contract for a Surveillance Technology. The Chapter does not provide a private right of action upon any person or entity to seek injunctive relief against the City or any employee unless that person or entity has first provided written notice to the City Manager by serving the City Clerk, regarding the specific alleged violations of this Chapter. If a specific alleged violation is not remedied within 90 days of that written notice, a person or entity may seek injunctive relief in a court of competent jurisdiction. If the alleged violation is substantiated and subsequently cured, a notice shall be posted in a conspicuous manner on the City's website that describes, to the extent permissible by law, the corrective measures taken to address the violation. If it is shown that the violation is the result of arbitrary or capricious action by the City or an employee or agent thereof in his or her official capacity, the prevailing complainant in an action for relief may collect from the City reasonable attorney's fees in an amount not to exceed \$15,000 if he or she is personally obligated to pay such fees.

**2.99.100 Whistleblower Protections**

All provisions of Berkeley's Protection of Whistleblowers Workplace Policy, as promulgated by the City Manager on November 2, 2016 and including any updates or replacements thereto, shall apply.

**2.99.110 Severability**

If any word, phrase, sentence, part, section, subsection, or other portion of this Chapter, or any application thereof to any person or circumstance, is declared void, unconstitutional, or invalid for any reason, then such word, phrase, sentence, part, section, subsection, or other portion, or the prescribed application thereof, shall be severable, and the remaining provisions of this Chapter, and all applications thereof, not having been declared void, unconstitutional or invalid, shall remain in full force and effect. The City Council hereby declares that it would have passed this title, and each section, subsection, sentence, clause and phrase of this Chapter, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases is declared invalid or unconstitutional.

Section 3. Copies of this Ordinance shall be posted for two days prior to adoption in the display case located near the walkway in front of the Maudelle Shirek Building, 2134 Martin Luther King Jr. Way. Within 15 days of adoption, copies of this Ordinance shall be filed at each branch of the Berkeley Public Library and the title shall be published in a newspaper of general circulation.

AMENDING BERKELEY MUNICIPAL CODE CHAPTER 2.99 TO PROHIBIT CITY USE  
OF FACE RECOGNITION TECHNOLOGY

BE IT ORDAINED by the Council of the City of Berkeley as follows:

Section 1. That the Berkeley Municipal Code is amended to read as follows:

**2.99.20 Definitions**

The following definitions apply to this Chapter:

1. "Surveillance Technology" means an electronic device, system utilizing an electronic device, or similar technological tool used, designed, or primarily intended to collect audio, electronic, visual, location, thermal, olfactory, biometric, or similar information specifically associated with, or capable of being associated with, any individual or group. Examples of covered Surveillance Technology include, but are not limited to: cell site simulators (Stingrays); automatic license plate readers; body worn cameras; gunshot detectors (ShotSpotter); facial recognition software; thermal imaging systems, except as allowed under Section 1(d); social media analytics software; gait analysis software; and video cameras that record audio or video and can remotely transmit or can be remotely accessed.

"Surveillance Technology" does not include the following devices or hardware, unless they have been equipped with, or are modified to become or include, a Surveillance Technology as defined in Section 1 (above):

- a. Routine office hardware, such as televisions, computers, and printers, that is in widespread public use and will not be used for any surveillance functions;
- b. Handheld Parking Citation Devices, that do not automatically read license plates;
- c. Manually-operated, portable digital cameras, audio recorders, and video recorders that are not to be used remotely and whose functionality is limited to manually capturing, viewing, editing and downloading video and/or audio recordings, but not including body worn cameras;
- d. Devices that cannot record or transmit audio or video or be remotely accessed, such as image stabilizing binoculars or night vision goggles or thermal imaging cameras used for fire operations, search and rescue operations and missing person searches, and equipment used in active searches for wanted suspects;
- e. Manually-operated technological devices that are not designed and will not be used to surreptitiously collect surveillance data, such as two-way radios, email systems and city-issued cell phones;

f. Municipal agency databases;

g. Medical equipment used to diagnose, treat, or prevent disease or injury, including electrocardiogram machines;

h. Cybersecurity capabilities, technologies and systems used by the City of Berkeley Department of Information Technology to predict, monitor for, prevent, and protect technology infrastructure and systems owned and operated by the City of Berkeley from potential cybersecurity events and cyber-forensic based investigations and prosecutions of illegal computer based activity;

i. Stationary security cameras affixed to City property or facilities.

2 "Surveillance Technology Report" means an annual written report by the City Manager covering all of the City of Berkeley's Surveillance Technologies that includes all of the following information with regard to each type of Surveillance Technology:

a. Description: A description of all non-privileged and non-confidential information about use of the Surveillance Technology, including but not limited to the quantity of data gathered and sharing of data, if any, with outside entities. If sharing has occurred, the report shall include general, non-privileged and non-confidential information about recipient entities, including the names of the entities and purposes for such sharing;

b. Geographic Deployment: Where applicable, non-privileged and non-confidential information about where the surveillance technology was deployed geographically;

c. Complaints: A summary of each complaint, if any, received by the City about the Surveillance Technology;

d. Audits and Violations: The results of any non-privileged internal audits, any information about violations or potential violations of the Surveillance Use Policy, and any actions taken in response;

e. Data Breaches: Non-privileged and non-confidential information about any data breaches or other unauthorized access to the data collected by the surveillance technology, including information about the scope of the breach and the actions taken in response;

f. Effectiveness: Information that helps the community assess whether the Surveillance Technology has been effective in achieving its identified outcomes;

g. Costs: Total annual costs for the Surveillance Technology, including personnel and other ongoing costs.

3 "Surveillance Acquisition Report" means a publicly-released written report produced prior to acquisition or to proposed permanent use after use in Exigent

Circumstances pursuant to Section 2.99.040 (2), of a type of Surveillance Technology that includes the following:

- a. Description: Information describing the Surveillance Technology and how it works, including product descriptions from manufacturers;
- b. Purpose: Information on the proposed purpose(s) for the Surveillance Technology;
- c. Location: The general location(s) it may be deployed and reasons for deployment;
- d. Impact: An assessment identifying potential impacts on civil liberties and civil rights including but not limited to potential disparate or adverse impacts on any communities or groups;
- e. Mitigation: Information regarding technical and procedural measures that can be implemented to appropriately safeguard the public from any impacts identified in subsection (d);
- f. Data Types and Sources: A list of the sources of data proposed to be collected, analyzed, or processed by the Surveillance Technology, including "open source" data;
- g. Data Security: Information about the steps that can be taken to ensure adequate security measures to safeguard the data collected or generated from unauthorized access or disclosure;
- h. Fiscal Cost: The fiscal costs for the Surveillance Technology, including initial purchase, personnel and other ongoing costs, including to the extent practicable costs associated with compliance with this and other reporting and oversight requirements, as well as any current or potential sources of funding;
- i. Third Party Dependence and Access: Whether use or maintenance of the technology will require data gathered by the technology to be handled or stored by a third-party vendor on an ongoing basis, and whether a third party may have access to such data or may have the right to sell or otherwise share the data in aggregated, disaggregated, raw or any other formats;
- j. Alternatives: A summary and general assessment of potentially viable alternative methods (whether involving the use of a new technology or not), if any, considered before deciding to propose acquiring the Surveillance Technology; and
- k. Experience of Other Entities: To the extent such information is available, a summary of the experience of comparable government entities with the proposed technology, including any unanticipated financial or community costs and benefits, experienced by such other entities.

4. "Surveillance Use Policy" means a publicly-released and legally-enforceable policy for use of each type of the Surveillance Technology that shall reflect the Surveillance Acquisition Report produced for that Surveillance Technology and that at a minimum specifies the following:

a. Purpose: The specific purpose(s) that the Surveillance Technology is intended to advance;

b. Authorized Use: The uses that are authorized, the rules and processes required prior to such use, and the uses that are prohibited;

c. Data Collection: Information collection that is allowed and prohibited. Where applicable, list any data sources the technology will rely upon, including "open source" data;

d. Data Access: A general description of the title and position of the employees and entities authorized to access or use the collected information, and the rules and processes required prior to access or use of the information, and a description of any and all of the vendor's rights to access and use, sell or otherwise share information for any purpose;

e. Data Protection: A general description of the safeguards that protect information from unauthorized access, including encryption and access control mechanisms, and safeguards that exist to protect data at the vendor level;

f. Civil Liberties and Rights Protection: A general description of the safeguards that protect against the use of the Surveillance Technology and any data resulting from its use in a way that violates or infringes on civil rights and liberties, including but not limited to potential disparate or adverse impacts on any communities or groups;

g. Data Retention: The time period, if any, for which information collected by the surveillance technology will be routinely retained, the reason such retention period is appropriate to further the purpose(s), the process by which the information is regularly deleted after that period lapses, and the specific conditions that must be met to retain information beyond such period;

h. Public Access: How collected information may be accessed or used by members of the public;

i. Third Party Data Sharing: If and how other City or non-City Entities can access or use the information, including any required justification or legal standard necessary to do so and any obligations imposed on the recipient of the information;

j. Training: Training required for any employee authorized to use the Surveillance Technology or to access information collected;



k. Auditing and Oversight: Mechanisms to ensure that the Surveillance Use Policy is followed, technical measures to monitor for misuse, and the legally enforceable sanctions for intentional violations of the policy; and

l. Maintenance: The mechanisms and procedures to ensure maintenance of the security and integrity of the Surveillance Technology and collected information.

5. "Exigent Circumstances" means the City Manager's good faith belief that an emergency involving imminent danger of death or serious physical injury to any person, or imminent danger of significant property damage, requires use of the Surveillance Technology or the information it provides.

6. "Face Recognition Technology" means an automated or semi-automated process that assists in identifying or verifying an individual based on an individual's face.

Section 2. That the Berkeley Municipal Code is amended to read as follows:

### **2.99.030 City Council Approval Requirement**

1. The City Manager must obtain City Council approval, except in Exigent Circumstances, by placing an item on the Action Calendar at a duly noticed meeting of the City Council prior to any of the following:

a. Seeking, soliciting, or accepting grant funds for the purchase of, or in-kind or other donations of, Surveillance Technology;

b. Acquiring new Surveillance Technology, including but not limited to procuring such technology without the exchange of monies or consideration;

c. Using new Surveillance Technology, or using Surveillance Technology previously approved by the City Council for a purpose, or in a manner not previously approved by the City Council; or

d. Entering into an agreement with a non-City entity to acquire, share or otherwise use Surveillance Technology or the information it provides, or expanding a vendor's permission to share or otherwise use Surveillance Technology or the information it provides.

2. The City Manager must present a Surveillance Use Policy for each Surveillance Technology to the Police Review Commission, prior to adoption by the City Council. The Police Review Commission shall also be provided with the corresponding Surveillance Acquisition Report that had been presented to council for that Surveillance Technology. No later than 30 days after receiving a Surveillance Use Policy for review, the Police Review Commission must vote to recommend approval of the policy, object to the proposal, recommend modifications, or take no action. Neither opposition to approval of

such a policy, nor failure by the Police Review Commission to act, shall prohibit the City Manager from proceeding with its own review and potential adoption.

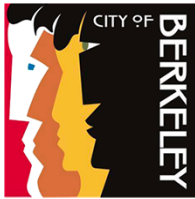
3. The City Manager must submit for review a Surveillance Acquisition Report and obtain City Council approval of a Surveillance Use Policy prior to engaging in any of the activities described in subsections (1) (a)-(d).

4. Notwithstanding any other provision of this Chapter, it shall be unlawful for any City staff to obtain, retain, request, access, or use: i) any Face Recognition Technology; or ii) any information obtained from Face Recognition Technology. City staff's inadvertent or unintentional receipt, access to, or use of any information obtained from Face Recognition Technology shall not be a violation of this subsection 4., provided that:

a. City staff does not request or solicit its receipt, access to, or use of such information; and

b. City staff logs such receipt, access to, or use in its Annual Surveillance Report.

Section 3. Copies of this Ordinance shall be posted for two days prior to adoption in the display case located near the walkway in front of the Maudelle Shirek Building, 2134 Martin Luther King Jr. Way. Within 15 days of adoption, copies of this Ordinance shall be filed at each branch of the Berkeley Public Library and the title shall be published in a newspaper of general circulation.



CITY COUNCILMEMBER  
**RIGEL ROBINSON**  
 DISTRICT 7

**03**

CONSENT CALENDAR  
 May 28<sup>th</sup>, 2019

To: Honorable Mayor and Members of the City Council  
 From: Councilmembers Rigel Robinson and Kate Harrison  
 Subject: Alternative Compliance Measures to Achieve Fire Safety in Existing Live/Work Spaces

RECOMMENDATION

Refer to the City Manager to develop alternative code compliance measures for nontraditional live/work spaces, in order to improve residential safety without displacing existing communities. Given the current shortage of affordable housing, Staff should consider how to enact a policy of leniency towards existing structures which may not be in complete compliance with city permits. Staff should seek methods to incentivize incremental safety renovations without exposing communities to eviction concerns.

BACKGROUND

In December 2016, the Oakland artist collective known as the Ghost Ship caught fire during a 50-person house concert, ultimately resulting in the deaths of 36 attendees. The building itself, a 1930's industrial warehouse, hadn't been inspected by the City in three decades. In addition to a densely packed interior with art, pianos, and antique furniture obstructing walkways, the Ghost Ship lacked fundamental safety features including sprinklers and clearly marked exits.

This tragedy highlighted the unique challenges and risks faced by the residents of similar nontraditional living spaces, and particularly by economically marginalized populations whose identities or financial circumstances can create a barrier to relocation. In response, Berkeley and other cities should consider what action can be taken to initiate the process of bringing existing spaces up to code without displacing current residents.

When considering methods of doing so, Staff should bear in mind that existing buildings may not be in complete compliance with current city permits and codes. Staff should consider how to adopt a policy of short-term leniency or amnesty, while these structures are improved for the long-term benefit of safe alternative living solutions.

The City of Seattle has also wrestled with the question of how to make alternative living spaces safer while preserving existing communities. In a letter to Seattle Mayor Ed Murray, the Seattle Arts Commission expressed that "reactionary shutdown of essential community spaces is not an appropriate, sustainable, or equitable response. Even when the intent is to protect the public by preventing imminent catastrophe, eviction creates another emergency: the violence of displacement. The existence of non-permitted, non-

code-compliant spaces is in part driven by the economics of space affordability in Seattle, and the fact that code compliance is complicated and expensive.”

Seattle is also considering systematic reforms, including: (1) Instructing all officials involved with code enforcement to consider the impact on marginalized communities before recommending venue closure or resident eviction. (2) Allowing the Fire Marshall to advise non-code-compliant communities on attainable incremental safety improvements, rather than demanding complete compliance immediately, according to the principle that keeping residents safe and housed is the best possible outcome. (3) Designating a fund to assist with life safety improvements, specifically for ‘underground’ or nontraditional live/work spaces. (4) Developing a low-barrier "Arts Events License" for non-commercial spaces, incentivizing nontraditional communities to obtain sanctioned permission rather than operate underground.

When developing a plan, Staff should consider whether aspects of the Seattle model may be appropriate or effective in Berkeley.

#### FINANCIAL IMPLICATIONS

Staff time.

#### ENVIRONMENTAL SUSTAINABILITY

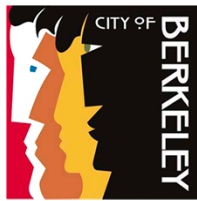
Per-capita use of energy and water by residents of collectives is typically lower. Preserving these community living arrangements helps maintain this low rate of energy and water use per resident. Furthermore, making these communities safer prevents fires which could have devastating consequences for the greater Bay Area ecosystem.

#### CONTACT PERSON

Councilmember Rigel Robinson, (510) 981-7170  
Mars Svec-Burdick, Intern to Councilmember Rigel Robinson

#### Attachments:

- 1: UC Berkeley Department of City and Regional Planning Report on Strategies for Live/Work Preservation  
([http://www.urbandisplacement.org/sites/default/files/images/livework\\_ucb\\_studio\\_report\\_final.pdf](http://www.urbandisplacement.org/sites/default/files/images/livework_ucb_studio_report_final.pdf))
- 2: Seattle Arts Commission Letter to Seattle Mayor Ed Murray  
([https://res.cloudinary.com/sagacity/image/upload/v1482164218/Commissions\\_Response\\_to\\_Oakland\\_Fire\\_mykyrd.pdf](https://res.cloudinary.com/sagacity/image/upload/v1482164218/Commissions_Response_to_Oakland_Fire_mykyrd.pdf))
- 3: Berkeley Zoning Code Title 23, Section 20: Live/Work Provisions  
([http://www.ci.berkeley.ca.us/uploadedFiles/Clerk/Level\\_3\\_-\\_BMC/BMC-Part2--032508.pdf](http://www.ci.berkeley.ca.us/uploadedFiles/Clerk/Level_3_-_BMC/BMC-Part2--032508.pdf))



CITY COUNCILMEMBER  
**RIGEL ROBINSON**  
 DISTRICT 7

04

ACTION CALENDAR  
 July 16, 2019

To: Honorable Mayor and Members of the City Council  
 From: Councilmembers Rigel Robinson and Cheryl Davila  
 Subject: Decriminalizing Entheogenic Plants

### RECOMMENDATION

Adopt a Resolution decriminalizing Entheogenic Plants and Fungi such as mushrooms, cacti, iboga containing plants, and/or extracted combinations of plants similar to Ayahuasca; and limited to those containing the following types of compounds: indole amines, tryptamines, phenethylamines, by restricting any city funds or resources to assist in the enforcement of laws imposing criminal penalties for the use and possession of Entheogenic Plants by adults age 21 and over.

### BACKGROUND

Currently, Psilocybe mushrooms, peyote, and other hallucinogens are classified as schedule 1 drugs in the United States. This categorization indicates that there is “no currently accepted medical use [for them] and a high potential for abuse.” However, the federal drug schedule does not align with current medical research or scientific consensus. In recent years numerous studies have provided promising evidence for the usefulness of Entheogenic Plants in treating addiction, depression, recidivism, trauma, post-traumatic stress symptoms, chronic depression, severe anxiety, end-of-life anxiety, grief, diabetes, cluster headaches, and other conditions.

Restrictions on natural psychedelics are not internationally consistent. The official position of the United Nations is that “No plants are currently controlled under the Conventions. Preparations made from plants containing those active ingredients are also not under international control... Examples of such plants or plant material include ayahuasca, a preparation made from plants indigenous to the Amazon basin of South America, mainly a jungle vine (*Banisteriopsis caapi*) and another tryptamine-rich plant (*Psychotria viridis*) containing a number of psychoactive alkaloids, including DMT; the peyote cactus (*Lophophora williamsii*), containing mescaline; *Psilocybe* mushrooms, which contain psilocybin and psilocin; and iboga (*Tabernanthe iboga*), a plant that contains ibogaine and is native to the western part of Central Africa.” Additionally, different Entheogenic plants are decriminalized or legalized in various countries, such as Brazil, Jamaica, Portugal, Gabon, New Zealand, South Africa, Mexico, Costa Rica, and the Netherlands. In particular, Portugal’s decriminalization of all drugs in 2001 decreased addiction and drug-related deaths without leading to a significant increase in drug usage, and can be used as an informative model for how to effectively treat drug issues in society (Felix, Sonia et. al).

In the U.S., Denver voters recently passed Initiative 301 decriminalizing Psilocybin-containing mushrooms, and Oakland recently passed a resolution similar to this proposal decriminalizing involvement with and usage of Entheogenic Plants. In New Mexico, the cultivation of mushrooms is not prohibited by law as a result of the 2005 court case *State v. Pratt*. Certain groups also have explicit permission to use Entheogenic Plants for ceremonial and sacramental use under the Religious Freedom Restoration Act of 1993 and various court decisions, including O Centro Espírita Beneficente União do Vegetal (ayahuasca), the Church of the Holy Light of the Queen (ayahuasca), and the Native American Church (peyote).

In October of 2018, the FDA granted breakthrough therapy designation to psilocybin, acknowledging that it shows promise for treating resistant conditions such as depression and allowing more involved study. Similarly, New York, Vermont, and Iowa have all proposed bills in the past four years allowing further research on Ibogaine as an addiction treatment, demonstrating that attitudes towards psychedelics as therapeutic medicines are evolving nationwide.

Though currently illegal in the U.S., Entheogenic Plants are increasingly showing promise in clinical research for treating myriad serious conditions. Recent research on Psilocybin for depression shows that it significantly reduces symptoms, and has promise for treating alcohol and drug addiction as well as general and end of life anxiety. Mushrooms have also historically been used to facilitate beneficial personal and spiritual growth: a John Hopkins study on neurotypical participants revealed that over 75% of the respondents considered their psilocybin experience to be among the top five most meaningful experiences of their lives. Mushrooms are also fairly low risk, with no noted addictive properties and direct overdose practically impossible, and a 2000 study by the Center for Assessment and Monitoring of New Drugs concluded that the risk to public order, individual health, and public health was low.

Other Entheogens are also showing promise for the treatment of various health issues. Ibogaine, the active ingredient in Iboga, is already used with medical supervision in countries like Mexico as an opioid addiction treatment, and a 2016 study (Brown, Thomas Kingsley and Alper, Kenneth) found that withdrawal symptoms and opioid use were significantly lessened in addicts that underwent ibogaine therapy. Ayahuasca can have profound impacts on mental outlook and hopefulness, and a 2013 study (Thomas, Gerald et. al) showed that usage significantly reduced tobacco, alcohol, and cocaine dependence as well. Peyote has been used without harm in Native American religious ceremonies for decades, and research (Halpern, John H. et. al) has shown that such usage did not result in neurophysiological impairment. Anecdotally, peyote use is associated with reduced rates of alcoholism in Native American populations, providing a promising avenue for further research into the use of peyote in treating alcohol abuse. Other promising directions for Entheogenic Plants as medicinal aids include the treatment and amelioration of cluster headaches, recidivism and intimate partner violence, diabetes, grief, and PTSD.

Unfortunately, laboratory produced compounds based on Entheogens are not yet a viable treatment for those suffering from physical and mental conditions. Furthermore, if

and when they do become available they are likely to be prohibitively expensive--synthetic psilocybin can range from \$7,000-10,000 per gram--raising concerns about access and equity for low income and uninsured populations. Decriminalizing the use, possession, cultivation, distribution, and transportation of Entheogens allows individuals rather than the pharmaceutical establishment to control their interaction with these powerful psychedelics, empowering and bonding communities as a result.

In this process, the organization Decriminalize Nature ([decriminalizenature.org](http://decriminalizenature.org)) has worked with Oakland, and now Berkeley, to further the movement to decriminalize natural Entheogens. Their mission is to enable every person to decide on their own how to engage with traditional Entheogenic Plants, and help restore the connection between nature, individuals, and communities in the process. It is intended that this resolution empowers Berkeley residents to be able to grow their own entheogens, share them with their community, and choose the appropriate setting for their intentions instead of having to rely exclusively on the medical establishment, which is slow to adapt and difficult to navigate for many. As this national conversation on entheogens grows, is essential to influence the debate and take a stand now for disenfranchised communities who may be left out of the dominant model by opening a way for individual and community access.

#### FINANCIAL IMPLICATIONS

Adoption of the resolution may slightly reduce ongoing City expenditures associated with the enforcement of criminal penalties relating to Entheogenic Plant usage by adults. Some staff time to implement the resolution.

#### ENVIRONMENTAL SUSTAINABILITY

Small to none, although allowing personal cultivation of peyote specifically could help to counteract its current classification as a vulnerable endangered plant, contributing to long-term ecological sustainability.

#### CONTACT PERSON

Councilmember Robinson, Council District 7, 510-981-7170  
Courtney Baldwin, Intern for District 7, [cbaldwin@cityofberkeley.info](mailto:cbaldwin@cityofberkeley.info)

#### Attachments:

- 1: Resolution
- 2: References

RESOLUTION NO. ##,###-N.S.

RESOLUTION SUPPORTING ENTHEOGENIC PLANT PRACTICES AND  
DECLARING THAT THE INVESTIGATION AND ARREST OF INDIVIDUALS  
INVOLVED WITH THE ADULT USE OF ENTHEOGENIC PLANTS ON THE FEDERAL  
SCHEDULE 1 LIST BE AMONGST THE LOWEST PRIORITY FOR THE CITY OF  
BERKELEY

WHEREAS, Entheogenic Plants, based on the term "entheogen", originally conceived by Ott, Ruck, and other colleagues from a working group of anthropologists and ethnobotanists in 1979; and defined herein as the full spectrum of plants, fungi, and natural materials deserving reverence and respect from the perspective of the individual and the collective, that can inspire personal and spiritual well-being<sup>1</sup>, can benefit psychological<sup>2</sup> and physical<sup>3</sup> wellness, and can reestablish human's inalienable and direct relationship to nature; and

WHEREAS, substance abuse<sup>4</sup>, addiction, recidivism<sup>5</sup>, trauma, post-traumatic stress symptoms, chronic depression, severe anxiety<sup>6</sup>, end-of-life anxiety, grief<sup>7</sup>, diabetes<sup>8</sup>, cluster headaches<sup>9</sup>, and other conditions are plaguing our community and that the use of Entheogenic Plants has been shown to be beneficial to the health and well-being of individuals and communities in addressing these afflictions via scientific and clinical studies and within continuing traditional practices, which can catalyze profound experiences of personal and spiritual growth; and

WHEREAS, practices with Entheogenic Plants have long existed and have been considered to be sacred to human cultures and human interrelationships with nature for thousands of years<sup>10</sup>, and continue to be enhanced and improved to this day by religious and spiritual leaders, practicing professionals, mentors, and healers throughout the world, many of whom have been forced underground; and

WHEREAS, those seeking to improve their health and well-being through the use of Entheogenic Plants use them in fear of arrest and prosecution; and

WHEREAS, the Entheogenic Plant practices of certain groups are already explicitly protected in the U.S. under the doctrine of religious freedom -- the Native American

---

<sup>1</sup> See [Entheogens for Personal and Spiritual Growth](#)

<sup>2</sup> See [Entheogens and Psychological Wellness](#)

<sup>3</sup> See [Entheogens and Physical Wellness](#)

<sup>4</sup> See [Entheogens and Substance Abuse](#)

<sup>5</sup> See [Entheogens and Recidivism](#)

<sup>6</sup> See [Entheogens and Anxiety](#)

<sup>7</sup> See [Entheogens and Grief](#)

<sup>8</sup> See [Ayahuasca and Diabetes](#)

<sup>9</sup> See [Entheogens and Cluster Headaches](#)

<sup>10</sup> See [Historical Use of Entheogens](#)



Church's use of peyote and the use of ayahuasca by two other churches, a Santo Daime congregation and the Uniao do Vegetal; and

WHEREAS, The United Nations considers Entheogenic Plant material used for ritual purposes as excluded from Schedule 1 substances; and

WHEREAS, Entheogenic plants containing ibogaine, for example, have been shown to alleviate treatment resistant cases of opiate and methamphetamine addiction even when other treatments have been ineffective<sup>11</sup>. In addition, ibogaine is reported to be beneficial for addiction therapy related to specific work-related PTSD encountered by first responders such as EMT, police, and firefighters, as well as military veterans; and

WHEREAS, Entheogenic Plants or combinations of plants such as ayahuasca that contain forms of DMT, a naturally occurring compound in the human body that is listed as a Schedule 1 substance, can lead to experiences that are reported as mystical or experientially similar to near death experiences<sup>12</sup> and that can be demonstrably beneficial in treating addiction<sup>13</sup>, depression<sup>14</sup>, PTSD<sup>15</sup>, and in catalyzing profound experiences of personal<sup>16</sup> and spiritual<sup>17</sup> growth; and

WHEREAS, Entheogenic cacti that contain phenethylamine compounds such as mescaline can be beneficial in healing drug and alcohol addiction<sup>18</sup> and for individual spiritual growth<sup>19</sup>, and have been utilized in sacred initiation and community healing by diverse religious and cultural traditions for millennia and continuing use as religious sacraments in modern times; and

WHEREAS, psilocybin, naturally occurring in Entheogenic mushrooms, can alleviate end-of-life anxiety for hospice and terminal cancer patients<sup>20</sup>, can reduce prison recidivism<sup>21</sup>, and can effectively treat substance abuse, depression<sup>22</sup>, cluster headaches<sup>23</sup>; and

WHEREAS, a Johns Hopkins University study on "healthy-normals" found that psilocybin can occasion mystical-type experiences, which were considered one of the

---

<sup>11</sup> See [Iboga/Ibogaine for Addiction Therapy](#)

<sup>12</sup> See [Ayahuasca Experience Similar to Near-Death Experience](#)

<sup>13</sup> See [Ayahuasca for Addiction Therapy](#)

<sup>14</sup> See [Ayahuasca and Depression](#)

<sup>15</sup> See [Ayahuasca and PTSD](#)

<sup>16</sup> See [Ayahuasca and Personal Growth](#)

<sup>17</sup> See [Ayahuasca and Spiritual Growth](#)

<sup>18</sup> See [Peyote for treatment of alcohol and drug dependence](#)

<sup>19</sup> See [Peyote](#)

<sup>20</sup> See [Psilocybin for End-of-Life Anxiety](#)

<sup>21</sup> See [Entheogens and Reduced Recidivism](#)

<sup>22</sup> See [Psilocybin and Treatment-Resistant Depression](#)

<sup>23</sup> See [Psilocybin and Cluster Headaches](#)

top five most meaningful experiences in a subject's life for over 75% of their subjects within the first year after the study, and found continuing positive life-style changes after a 14-month follow-up; and

WHEREAS, the following principles, when adhered to, help to ensure safe and responsible use of entheogenic plants:

1. **Entheogens are not for everyone.** Knowledgeable clinicians caution that some people should not take entheogenic plants or fungi, including people with a personal or family history of schizophrenia or bipolar disorder or who are taking certain medications or using other recreational drugs. See <https://adf.org.au/drug-facts/psychedelics/> for more information.
2. **Always conduct thorough research before using entheogens or other drugs.** Side effects, interactions, and long term consequences are possible with any drug, including but not limited to permanent brain and personality changes.
3. **If someone has a serious condition like major depression or PTSD, they would do well to get serious, professional help before using an entheogen** and to ask that caregiver's advice. Some counselors and therapists are glad to work with a client before and after an entheogenic journey.
4. **Unless you have expert guidance, it's best to start with small amounts,** using more only after you become familiar with the material and the terrain.
5. **Don't go solo.** Have at least one trusted friend (called sitter, guide, or facilitator) be with you, sober during the entire journey, and commit in advance to honor that person's instructions if he or she tells you not to do something. Entheogens can amplify the whole range of human emotions, including anxiety, which can sometimes lead to panic. Having a sitter gives you a certain comfort and mental freedom, and can help keep things safe.
6. **Reverence reduces risks and can help lead to positive outcomes.** In cultures that have long used entheogenic substances beneficially, that use is approached with great respect, not haphazardly, and for life-enhancing purposes.

; and

WHEREAS, the City of Berkeley wishes to declare its desire not to expend City resources in any investigation, detention, arrest, or prosecution arising out of alleged violations of state and federal law regarding the use of Entheogenic Plants.

NOW THEREFORE, BE IT RESOLVED by the Council of the City of Berkeley that the Mayor and City Council hereby declare that it shall be the policy of the City of Berkeley that no department, agency, board, commission, officer or employee of the city, including without limitation, Berkeley Police Department personnel, shall use any city funds or

resources to assist in the enforcement of laws imposing criminal penalties for the use and possession of Entheogenic Plants by adults of at least 21 years of age. For the purposes of this resolution, Entheogenic Plants are defined as plants and natural sources such as mushrooms, cacti, iboga containing plants and/or extracted combinations of plants similar to ayahuasca; and limited to those containing the following types of compounds: indole amines, tryptamines, phenethylamines.

BE IT FURTHER RESOLVED that this resolution does not authorize or enable any of the following activities: commercial sales or manufacturing of these plants and fungi, possessing or distributing these materials in schools, driving under the influence of these materials; or public disturbance.

BE IT FURTHER RESOLVED that the City Council directs the City Manager to work with the City's lobbyists to support the decriminalization of all Entheogenic Plants and plant-based compounds that are listed on the Federal Controlled Substances Schedule 1.

BE IT FURTHER RESOLVED that the City Council hereby declare that it shall be the policy of the City of Berkeley that the investigation and arrest of adult persons for planting, cultivating, purchasing, transporting, distributing, engaging in practices with, and/or possessing Entheogenic Plants or plant compounds on the Federal Schedule 1 list shall be amongst the lowest law enforcement priority for the City of Berkeley.

BE IT FURTHER RESOLVED that the City Council call upon the Alameda County District Attorney to cease prosecution of persons involved in the use of Entheogenic Plants or plant-based compounds on the Federal Schedule 1 List.

BE IT FURTHER RESOLVED that the City Council directs the City Manager to return to Council and present an assessment of community impacts and benefits within a year of passage of this resolution.

BE IT FURTHER RESOLVED that if any provision of this resolution is declared by a court of competent jurisdiction to be contrary to any statute regulation or judicial decision or its applicability to any agency person or circumstances is held invalid the validity of the remainder of this resolution and its applicability to any other agency person or circumstance shall not be affected.

BE IT FURTHER RESOLVED that a copy of this resolution shall be sent to Alameda County Supervisor Keith Carson, Assemblymember Buffy Wicks, State Senator Nancy Skinner, Congresswoman Barbara Lee, Senator Dianne Feinstein, and Senator Kamala Harris, and that the Berkeley City Council formally requests that they take action to decriminalize Entheogenic plants through their respective legislative bodies.

## References

Brown, Thomas Kingsley and Alper, Kenneth. "Treatment of Opioid Use Disorder with Ibogaine: Detoxification and Drug Use Outcomes." *Taylor & Francis*, [www.tandfonline.com/doi/full/10.1080/00952990.2017.1320802](http://www.tandfonline.com/doi/full/10.1080/00952990.2017.1320802).

Felix, Sonia, et al. *Going after the Addiction, Not the Addicted: The Impact of Drug Decriminalization in Portugal*. IZA Institute of Labor Economics, July 2017, [ftp.iza.org/dp10895.pdf](http://ftp.iza.org/dp10895.pdf).

Halpern, John H, et al. "Psychological and Cognitive Effects of Long-Term Peyote Use among Native Americans." *Biological Psychiatry*, U.S. National Library of Medicine, 15 Oct. 2005, [www.ncbi.nlm.nih.gov/pubmed/16271313](http://www.ncbi.nlm.nih.gov/pubmed/16271313).

Thomas, Gerald, et al. "Ayahuasca-Assisted Therapy for Addiction: Results from a Preliminary Observational Study in Canada." *Maps.org*, 2013, [maps.org/research-archive/ayahuasca/Thomas\\_et\\_al\\_CDAR.pdf](http://maps.org/research-archive/ayahuasca/Thomas_et_al_CDAR.pdf).

### Entheogens for Personal and Spiritual Growth

Frecska, E., et al. (2012). Enhancement of Creative Expression and Entoptic Phenomena as After-Effects of Repeated Ayahuasca Ceremonies. *Journal of Psychoactive Drugs* 44(3), pp. 191-199.

Hartogsohn, I. (2018). The Meaning-Enhancing Properties of Psychedelics and Their Mediator Role in Psychedelic Therapy, Spirituality, and Creativity. *Frontiers in Neuroscience*, 12 (129). doi:10.3389/fnins.2018.00129

MacLean, K., et al. (2011). Mystical experiences occasioned by the hallucinogen psilocybin lead to increases in the personality domain of openness. *Journal of Psychopharmacology*, 25(11) 1453–1461.

Móró, L., et al. (2011) Voice of the Psychonauts: Coping, Life Purpose, and Spirituality in Psychedelic Drug Users. *Journal of Psychoactive Drugs*, 43 (3), pp. 188-198.

DOI: 10.1080/02791072.2011.605661

Nour, M., et al. (2017): Psychedelics, Personality and Political Perspectives. *Journal of Psychoactive Drugs*. DOI:10.1080/02791072.2017.1312643

Sweat, N., et al. (2016). The Associations of Naturalistic Classic Psychedelic Use, Mystical Experience, and Creative Problem Solving. *Journal of Psychoactive Drugs*, 48 (5), pp. 344-350, DOI: 10.1080/02791072.2016.1234090

### Entheogens and Psychological Wellness

Frecska E., et al., (2016). The Therapeutic Potentials of Ayahuasca: Possible Effects against Various Diseases of Civilization. *Frontiers in Pharmacology*, 7(35).

doi:10.3389/fphar.2016.00035

McKenna, D. (2004). Clinical investigations of the therapeutic potential of ayahuasca: rationale and regulatory challenges. *Pharmacology & Therapeutics* 102(2), pp. 111-129.

dos Santos, R. et al. (2017). Effects of the Natural  $\beta$ -Carboline Alkaloid Harmine, a Main Constituent of Ayahuasca, in Memory and in the Hippocampus: A Systematic Literature Review of Preclinical Studies. *Journal of Psychoactive Drugs*, 49 (1), pp. 1-10, DOI: 10.1080/02791072.2016.1260189

Wilcox, J. (2014). Psilocybin and Obsessive-Compulsive Disorder. *Journal of Psychoactive Drugs*, 46 (5), pp. 393-395. DOI: 10.1080/02791072.2014.963754

### Entheogens and Physical Wellness

Djamshidian, A., et al. (2015). "Banisteriopsis caapi, a Forgotten Potential Therapy for Parkinson's Disease?" *Movement Disorders Clinical Practice*: n/a-n/a.

Liu, X., et al., (2017) Harmine is an inflammatory inhibitor through the suppression of NF- $\kappa$ B signaling. *Biochemical and Biophysical Research Communications*, <http://dx.doi.org/10.1016/j.bbrc.2017.05.126>

Ly et al. (2018). Psychedelics Promote Structural and Functional Neural Plasticity. *Cell Reports* 23, pp. 3170–3182.

McCleary, J., et al., (1960). Antibiotic activity of an extract of peyote (*Lophophora Williamsii*). *Economic Botany*, 14(3), pp. 247-249.

dos Santos, R. (2014) Immunological Effects of Ayahuasca in Humans. *Journal of Psychoactive Drugs*, 46 (5), pp. 383-388.

Samoylenkoa, V., et al. (2010). Banisteriopsis caapi, a unique combination of MAO inhibitory and antioxidative constituents for the activities relevant to neurodegenerative disorders and Parkinson's disease. *Journal of Ethnopharmacology*, 127 (2), pp. 357–367. doi:10.1016/j.jep.2009.10.030.

### Entheogens and Substance Abuse

Bogenschutz, M., et al. (2015). Psilocybin-assisted treatment for alcohol dependence: A proof-of-concept study. *Journal of Psychopharmacology* 29(3), pp. 289-299.

Bogenschutz, M., and Forcehimes, A. (2017). Development of a Psychotherapeutic Model for Psilocybin-Assisted Treatment of Alcoholism. *Journal of Humanistic Psychology*, 57(4), pp. 389–414.

Johnson, M. et al. (2017). An online survey of tobacco smoking cessation associated with naturalistic psychedelic use. *Journal of Psychopharmacology* 31 (7), pp. 841-850.

de Veen, B. (2017) Psilocybin for treating substance use disorders? *Expert Review of Neurotherapeutics*, 17 (2), pp. 203-212. DOI: 10.1080/14737175.2016.1220834

### Entheogens and Recidivism

Romero, S. (March 28, 2015). In Brazil, some inmates get therapy with hallucinogenic tea. *The New York Times*.

### Entheogens and Anxiety

Sarris, J., et al. (2013). "Plant-based medicines for anxiety disorders, part 2: a review of clinical studies with supporting preclinical evidence." *CNS Drugs* 27(4), pp. 301-319.

### Entheogens and Grief

González, D., et al. (2017). Potential Use of Ayahuasca in Grief Therapy. *OMEGA—Journal of Death and Dying*, pp. 1-26.

### Ayahuasca and Diabetes

Wang, P. et al., (2015). A high-throughput chemical screen reveals that harmine-mediated inhibition of DYRK1A increases human pancreatic beta cell replication. *Nature Medicine* 21, pp. 383–388.

### Entheogens and Cluster Headaches

Schindler, E., et al. (2015) Indoleamine Hallucinogens in Cluster Headache: Results of the Clusterbusters Medication Use Survey, *Journal of Psychoactive Drugs*, 47:5, 372-381, DOI: 10.1080/02791072.2015.1107664

### Historical Use of Entheogens

El-Seedi, H., et al. (2005). Prehistoric peyote use: Alkaloid analysis and radiocarbon dating of archaeological specimens of *Lophophora* from Texas. *Journal of Ethnopharmacology* 101(1), pp. 238-242.

Guzmán, G. (2008). Hallucinogenic Mushrooms in Mexico: An Overview. *Economic Botany*, 62(3), pp. 404-412.

Miller, L. et al., (2019). Chemical evidence for the use of multiple psychotropic plants in a 1,000-year-old ritual bundle from South America. *Proceedings of the National Academy of Sciences*. DOI:10.1073/pnas.190217411

Samorini, G. (1992). The Oldest Representations Of Hallucinogenic Mushrooms In The World (Sahara Desert, 9000 – 7000 B.P.). *Integration, Journal of Mind-moving Plants and Culture* 2/3.

### Iboga/Ibogaine for Addiction Therapy

Alper, K., et al. (1999). Treatment of acute opioid withdrawal with ibogaine. *American*

- Journal of Addictions*, 8(3), 234–242. doi:10.1080/105504999305848
- Brown, T. K. (2013). Ibogaine in the treatment of substance dependence. *Current Drug Abuse Reviews*, 6(1), 3–16. doi:10.2174/15672050113109990001
- Brown, T. and Alper, K. (2017): Treatment of opioid use disorder with ibogaine: detoxification and drug use outcomes. *The American Journal of Drug and Alcohol Abuse*. DOI: 10.1080/00952990.2017.1320802
- Luciano, D. (1998). Observations on treatment with ibogaine. *American Journal of Addictions*, 7(1), pp. 89–89. doi:10.1111/j.1521-0391.1998.tb00472.x
- Mash, D., et al. (2001). Ibogaine in the treatment of heroin withdrawal. In K. Alper, & G. A. Cordell (Eds.), *The alkaloids: Chemistry and biology* (1st ed., Vol. 56, pp. 155–171). London: Academic Press/Elsevier.
- Mash, D., et al., (2018) Ibogaine Detoxification Transitions Opioid and Cocaine Abusers Between Dependence and Abstinence: Clinical Observations and Treatment Outcomes. *Frontiers in Pharmacology*. 9:529. doi: 10.3389/fphar.2018.00529
- Sheppard, S. G. (1994). A preliminary investigation of ibogaine: Case reports and recommendations for further study. *Journal of Substance Abuse Treatment*, 11(4), 379–385. doi:10.1016/0740-5472(94)90049-3

#### Ayahwasca Experience Similar to Near-Death Experience

- Liester, M. B. (2013). Near-death experiences and ayahuasca-induced experiences – two unique pathways to a phenomenologically similar state of consciousness. *Journal of Transpersonal Psychology* 45(1), p. 24.

#### Ayahwasca for Addiction Therapy

- Barbosa, P. et al. (2018) Assessment of Alcohol and Tobacco Use Disorders Among Religious Users of Ayahuasca. *Frontiers in Psychiatry*, 9 (136). doi:10.3389/fpsy.2018.00136
- Brierley, D., and Davidson, C. (2012). Developments in harmine pharmacology – Implications for ayahuasca use and drug-dependence treatment. *Progress in Neuro-psychopharmacology & Biology* 39(2), pp. 263-272.
- Liester, M. and Prickett, J. (2012) Hypotheses Regarding the Mechanisms of Ayahuasca in the Treatment of Addictions. *Journal of Psychoactive Drugs*, 44 (3), pp. 200-208. DOI: 10.1080/02791072.2012.704590
- Loizaga-Velder, A. and R. Verres (2014). Therapeutic effects of ritual ayahuasca use in the treatment of substance dependence--qualitative results. *Journal of Psychoactive Drugs* 46(1), pp. 63-72.
- Mabit, J., et al. (1996). Takiwasi: The Use of Amazonian Shamanism to Rehabilitate Drug Addicts. *Yearbook of Cross-Cultural Medicine and Psychotherapy*. W. Andritzky. Berlin, International Institute of Cross-Cultural Therapy Research.
- Talina, P., and Sanabriab, E. (2017). Ayahuasca's entwined efficacy: An ethnographic study of ritual healing from addiction. *International Journal of Drug Policy* 44, pp. 23–30.

Thomas, G., et al. (2013). Ayahuasca-assisted therapy for addiction: results from a preliminary observational study in Canada. *Current Drug Abuse Review* 6(1), pp. 30-42.

### Ayahuasca and Depression

Anderson, B. (2012). Ayahuasca as Antidepressant? Psychedelics and Styles of Reasoning in Psychiatry. *Anthropology of Consciousness*, 23 (1), pp. 44–59.

de L. Osório, F., et al. (2015). Antidepressant effects of a single dose of ayahuasca in patients with recurrent depression: a preliminary report. *Revista Brasileira de Psiquiatria* 37(1), pp. 13-20.

Palhano-Fontes, F., et al. (2014). The Therapeutic Potentials of Ayahuasca in the Treatment of Depression. *The Therapeutic Use of Ayahuasca*. B. C. Labate and C. Cavnar, Springer: Berlin, Heidelberg, pp. 23-39.

dos Santos, R., et al. (2016). Anti-depressive, anxiolytic, and anti-addictive effects of ayahuasca, psilocybin and lysergic acid diethylamide (LSD): A systematic review of clinical trials published in the last 25 years. *Therapeutic Advances in Psychopharmacology*, 6(3), pp. 193–213. doi:10.1177/2045125316638008

### Ayahuasca and PTSD

Nielson, J. and Megler, J. (2014). Ayahuasca as a Candidate Therapy for PTSD. *The Therapeutic Use of Ayahuasca*. B. C. Labate and C. Cavnar, Springer: Berlin, Heidelberg, pp. 41-58.

### Ayahuasca and Personal Growth

Bouso, J. C., et al. (2012). "Personality, Psychopathology, Life Attitudes and Neuropsychological Performance among Ritual Users of Ayahuasca: A Longitudinal Study. *PLoS ONE* 7(8).

Kuypers, K., et al. (2016). Ayahuasca enhances creative divergent thinking while decreasing conventional convergent thinking. *Psychopharmacology*. DOI 10.1007/s00213-016-4377-8

Soler J., et al. (2018). Four Weekly Ayahuasca Sessions Lead to Increases in "Acceptance" Capacities: A Comparison Study With a Standard 8-Week Mindfulness Training Program. *Frontiers in Pharmacology*, 9 (224). doi: 10.3389/fphar.2018.00224

### Ayahuasca and Spiritual Growth

Harris, R., and Gurel, L. (2012). A Study of Ayahuasca Use in North America. *Journal of Psychoactive Drugs* 44(3): 209-215.

Trichter, S., et al. (2009). Changes in spirituality among ayahuasca ceremony novice participants. *Journal of Psychoactive Drugs* 41(2), pp. 121-134.



Tupper, K. (2010). Entheogenic healing: The spiritual effects and therapeutic potential of ceremonial ayahuasca use. *The healing power of spirituality: How faith helps humans thrive, Volume 3*. J. H. Ellens. Santa Barbara, Praeger: pp. 269-282.

Tupper, K. W. (2002). Entheogens and Existential Intelligence: The Use of Plant Teachers as Cognitive Tools. *Canadian Journal of Education* 27(4), pp. 499-516.

#### Peyote for treatment of alcohol and drug dependence

Winkelman, M. (2014). Psychedelics as Medicines for Substance Abuse Rehabilitation: Evaluating Treatments with LSD, Peyote, Ibogaine and Ayahuasca. *Current Drug Abuse Reviews* 7, pp. 101-116.

#### Peyote

Calabrese, J. (2007). The Therapeutic Use of Peyote in the Native American Church Chapter 3 in Vol. 1 of *Psychedelic Medicine: New Evidence for Hallucinogens as Treatments*. Michael J. Winkelman and Thomas B. Roberts (editors). Westport, CT: Praeger/Greenwood.

Feeney, K. (2007). The Legal Basis for Religious Peyote Use. Chapter 13 in Vol 1 of *Psychedelic Medicine: New Evidence for Hallucinogens as Treatments*. Michael J. Winkelman and Thomas B. Roberts (editors). Westport, CT: Praeger/Greenwood.

#### Psilocybin for End-of-Life Anxiety

Blinderman, C. (2016). Psycho-existential distress in cancer patients: A return to entheogens. *Journal of Psychopharmacology* 30 (12), pp. 1205-1206.

Kelmendi, B., et al. (2016). The role of psychedelics in palliative care reconsidered: A case for psilocybin. *Journal of Psychopharmacology* 30(12), pp. 1212-1214.

Ross, S., et al. (2016). Rapid and sustained symptom reduction following psilocybin treatment for anxiety and depression in patients with life-threatening cancer: a randomized controlled trial. *Journal of Psychopharmacology*, 30(12), pp. 1165-1180.

#### Entheogens and Reduced Recidivism

Hendricks, P., et al. (2014). Hallucinogen use predicts reduced recidivism among substance-involved offenders under community corrections supervision. *Journal of Psychopharmacology* 28(1), pp. 62-66.

Walsh, Z. , et al. (2016). Hallucinogen use and intimate partner violence: Prospective evidence consistent with protective effects among men with histories of problematic substance use. *Journal of Psychopharmacology*, pp. 1-7.  
DOI:10.1177/0269881116642538.

#### Psilocybin and Treatment-Resistant Depression

Hendricks, P., et al. (2015). Psilocybin, psychological distress, and suicidality. *Journal of Psychopharmacology*, 29(9), pp. 1041–1043.

Lyons, T. and Carhart-Harris, R. (2018). Increased nature relatedness and decreased authoritarian political views after psilocybin for treatment-resistant depression. *Journal of Psychopharmacology*, 32(7), pp. 811–819.

#### Psilocybin and Cluster Headaches

Schindler, E. et al., (2015) Indoleamine Hallucinogens in Cluster Headache: Results of the Clusterbusters Medication Use Survey, *Journal of Psychoactive Drugs*, 47(5), pp. 372-381. DOI:10.1080/02791072.2015.1107664