

1. ARTIST(S)

ARTIST(S) NAME(S): **Ben Dean**

COUNTRY(IES) OF ORIGIN: \_\_\_\_\_ United States

COUNTRY(IES) OF RESIDENCE: \_\_\_\_\_ United States

IF MORE THAN ONE ARTIST, PLEASE DEFINE THE RELATIONSHIP:

WERE BOTH OF YOU INVOLVED FROM THE BEGINNING?

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HOW WERE YOUR RESPONSIBILITIES DIVIDED IF THEY WERE?

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WHAT WERE THEY?

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REPRESENTATIVES, IF APPLICABLE (gallery, distributor, managing agency):

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- > **Attach the most recent version of your *résumé* (indicate date of birth).**
- > **Attach exhibition/publication history for the work, if applicable.**

2. WORK

TITLE: A More Supple Perplex

DATE OF PRODUCTION: 2013/2014\_\_\_\_\_ COUNTRY/PLACE OF PRODUCTION: USA

NUMBER OF EXISTING CLONES: None\_\_\_\_\_ HAS A CLONE/COPY BEEN SOLD? No

DESCRIBE THE WORK IN TERMS OF ITS CONCEPT AND ARTISTIC APPROACH:

The goal, so far unattained, was to produce documents that have the appearance of having been composed in a language or languages which the viewer did not speak. Syntax without semantics, all form and no content. To this end, I wrote, and indeed continue to create, computer programs which generate letters (in the sense of missives, not characters) and in generating the letter, also generate the structural rules of a language.

The artistic approach is twofold. On the one hand, I wanted explore classic art historical ideas, taking on some major themes of modernism and its discontents: abstraction, the artist's subjectivity, proceduralism, and so on. On the other hand, I hoped to surface more personal and emotional concerns of my own: unbridgeable gaps between people, missed connection, and the tickle of the almost-understood.

The secret, third artistic motivation for building the Perplex is a joke about abstract painting for conceptual artists. I wanted to make language art work like abstract paintings--lovely, sophisticated gibberish.

As with the majority of my work, it attempts to minimize or eliminate beginnings and endings, and propose itself as an infinite stream from which one may sample a part, though never encapsulate the whole. This is the fundamental reason for working in automatic systems and software--one could always run the program again, and get one more element of the set.

#### IDENTIFY THE TECHNICAL COMPONENT(S) AND THEIR FUNCTIONS:

The core and only important component is the program written in the Racket programming language. Running the program once will generate a first bit of text, and the seed of the language. Evaluating the function (more) within the Racket environment will produce more text in the language, and expand the grammar and lexicon of the language. This process can be repeated as long as one likes, or until the host environment runs out of memory.

The source code is hosted on github: <https://github.com/bd/perplex>, and so contains not only the current state of the code, but also the development history in the source tree. It is an open source project, to the extent that anyone else desires to use or contribute to the code--this is important to me in theory, if not in practice. By making an utterly opaque end product with the most open possible methods, I hope to balance the two competing instincts.

The letters themselves are hosted on google drive, and are added as an appendix program to the perplex determines they should be--again in the service of removing my own decision-making and judgement from the production of the piece at every opportunity.

**WORK (continued)**

**DESCRIBE THE IDEAL NETWORK ENVIRONMENT FOR THE WORK, TAKING INTO CONSIDERATION THE FOLLOWING:**

- Screen type and size
- Screen resolution
- Browser Type and Version
- Sound (speakers or headphones)
- Room Lighting
- Graphics/Video Card
- Processor Name/Processing Speed

All completely irrelevant. This is a text piece--the letters could be emailed or hand-scribed by Cistercian monks.

**IDENTIFY:**

PROGRAMMING LANGUAGE: Typed Racket \_\_\_\_\_

AUTHORING ENVIRONMENT OR SOFTWARE TYPE USED: Racket

AUDIO AND VIDEO COMPRESSION SYSTEM USED: N/A

RATIO FORMAT: N/A

NON-STANDARD CODE, IF APPLICABLE: N/A

SOURCES OF EXTERNAL DATA: Probably one of the most autistic pieces of software possible! Nothing external to it at all.

**IN HINDSIGHT:**

WERE YOU HAPPY WITH THE TECHNOLOGY YOU USED? Yes, overall.

WERE THERE OTHER TECHNOLOGIES YOU MIGHT HAVE USED? I've written earlier versions in Python and Bash. Any language would work, and it would also be possible to build a version of the Perplex using pencil, paper, and a bowl of dice.

IF YOU WERE TO DO THIS WORK TODAY, WOULD YOU CHOOSE TO WORK WITH THE SAME TECHNOLOGIES? As indicated above, the project will have future versions (that's software!) and will take different approaches, including different technologies--in particular, I look forward to seeing how Erlang or another highly concurrent, actor-model language influences my design decisions.

IF NOT, HOW WOULD YOU RECREATE IT? \_\_\_\_\_ See above

WHEN YOU SELECTED THESE TECHNOLOGIES TO REALIZE YOUR WORK, DID YOU THINK OF THE FUTURE? I.E. WHETHER IT WOULD FUNCTION IN 1, 5, OR 10 YEARS. OR DID YOU NOT CARE?

I chose Racket because it is a Scheme, which is a Lisp, which is the second oldest programming language in existence, and is itself a practical implementation of the Lambda Calculus, which is one of the very first full-fledged computing formalisms, along with Turing's Machine. While worrying about whether it would function in the future was not a major concern, the question of my medium's history and logic was paramount. This project would have been much simpler to produce had I allowed myself to use side-effects (other than random number generation), but I strove for a completely functional structure--that is, the Perplex could be understood as a single, complex algebraic function.

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SPECIFY RECOMMENDATIONS, IF APPLICABLE (storage, maintenance):

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> Attach related documents, if applicable.

Signature: Ben Dean \_\_\_\_\_ Date: 08/08/14

QUESTIONNAIRE UPDATE (for future use; leave blank for now)

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Date of update:            /            /

THANK YOU FOR EMAILING THE COMPLETED QUESTIONNAIRE TO THE ATTENTION OF:

**HELEN THORINGTON or JO-ANNE GREEN**  
[newradio@turbulence.org](mailto:newradio@turbulence.org) [turbulence@turbulence.org](mailto:turbulence@turbulence.org)

**NEW RADIO AND PERFORMING ARTS, INC.**  
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The Turbulence.org Archive is funded by the National Endowment for the Arts