Steve Antosca

One becomes Two

for violin and computer
Steve Antosca

One becomes Two

for violin and computer

world premiere
Phillips Collection
Washington, DC
March 25, 2007
Lina Bahn, violin
Steve Antosca, computer
The inspiration for *One becomes Two* came from a passage in C. G. Jung’s writings where he symbolically describes the process of transformation:

> ... when the bud unfolds and from the lesser the greater emerges, then
> *One becomes Two* and the greater figure, which one always was but which remained invisible, appears with the force of a revelation.

The metaphor of the bud opening into a flower has always fascinated me. Jung’s depiction of the process in relation to transformation and his incorporation of Nietzsche’s phrase "*One becomes Two*" is captivating.

In *One becomes Two* the expansion of the bud into flower is represented by two characteristics: the flowing of the melodic line from a single voice to a second voice, first making an appearance as a pedal tone, then as double stops and as multiple stops. Ultimately this leads to the presentation of dual paths, one of which the performer must choose. Within those paths, each passage has a distinct set of non-determinate performance choices. At the end of this “path section” the performer must choose among four personalities: joy, passion, duality and enduring spirit, each with its own unique performance characteristics. The closing passages are marked “with passion” and “blisteringly fast, with abandon.”

The second characteristic is the use of the computer for the transformation of the violin sound in an interactive, real-time manner. The violin is connected via pickup to a digital interface and then to a laptop which is running a composer created Max/MSP patch which utilizes feedback, flange, pitch shifting, delay and tap delay to generate flowing reflections of the violin source.

The contemporary performance techniques used in *One becomes Two* provide elements of improvisation and non-determinance in the performance. This is done to allow the performer to contribute to the outcome of the piece by making some of the rhythmic and pitch choices in the composition. In this way, no two performances of the piece will be the same.

While considering the compositional aspects of *One becomes Two* I was intrigued by the challenge of writing a piece with a strict structure created within a precise and expanding timeframe. When considering the composition, structure became a defining attribute and from this flowed specific design elements of the composition. The challenge in creating a composition under strict structural and temporal constraints is to make the piece seem intuitive, flowing and expressive, and yet to be very directed and controlled.

Once the structure and timeframe are created and then placed in the hands of the performer, the composer’s strict adherence to structure becomes fluid, the element of time becomes pliant, tempos will fluctuate with expression, the time element expands, and *One becomes Two* unfolds, somewhat like the opening of a bud.

*One becomes Two*, premiered by violinist Lina Bahn at the Phillips Collection in Washington, DC in March 2007, was described by the Washington Post as “the afternoon’s most exciting composition. It was performed with knowing sensitivity by Bahn, her violin plugged into Antosca’s laptop, her fiddle generating ambient electronically controlled responses that were repeated or transformed into vaporous, liquid reflections of her sound.” *One becomes Two* received its European premiere in Paris by Ms. Bahn at the Festival de musique Américaine in May 2007 and has been performed throughout the US and in China. *One becomes Two* was performed in New York in April 2009 by Mari Kimura at CUNY NYC as a featured recital at the first New York City Electroacoustic Music Festival (*NYCEMF*) and was performed at the International ElectroAcoustic Music Festival 2009 in Rome.

In 2008, a graphic page from the score for *One becomes Two* was published in *Notations 21*, a compendium and anthology of illustrated contemporary scores in the style of John Cage’s 1986 book *Notations*. In 2009, *One becomes Two* was chosen as a selected winner in the “Electroacoustic music with instruments” category of the 36th Bourges International Competitions 2009.

(an electronic version of these notes is available at: [www.steveantosca.com/One_becomes_Two.html](http://www.steveantosca.com/One_becomes_Two.html))
Max/MSP PERFORMANCE INSTRUCTIONS for One becomes Two
for violin and real-time computer processing

The Max/MSP patch for One becomes Two is a relatively simple patch to operate. It consists of 10 presets which are triggered at indicated points in the score by clicking on the yellow preset buttons.

These will set the patch to the appropriate starting level for that section of the performance.

One difference with the operation of this patch from most Max/MSP patches is that the computer operator is actively involved with the performance of the piece. One becomes Two was conceived as a duet for violin and computer, so the computer operator is an integral part of the performance, performing onstage with the violinist. This means that after the beginning of each preset, the computer operator should make adjustments to any of the parameters of the patch, as seem appropriate to the performance, the interaction with the violinist and the acoustic properties of the performance space. This interaction continues until the next patch preset indicator where you begin the manipulation again. Sometimes the patch you are manipulating is simply reset to that same number, normaling all parameters for that patch. Generally, patch selection moves through the numbered sequence as you move through the score, but at other times it jumps around freely from patch to patch.

Patch and parameter changes are indicated in large black boxes:

The parameters that are available for adjustment include:

Left and right delay time
Flange rate and depth
Feedback control L&R individually
Dry/Wet mix
A few notes:
1. patch 1 is normal/OFF
2. The performance starts with patch 2 and there is a minimum of FX at the start, just enough for the audience to know that there is an effect present. This increases through the first section of the score to rehearsal letter B. At that point, a less restrained use of FX is appropriate.
3. There are a number of performance indications in the score for manipulation of patch parameters. These are to be adjusted at the discretion of the computer operator.
4. PB in the score indicates pitch bend. This usually occurs at section endings such as the last 8 seconds before rehearsal letter B, where the long-held notes are available for pitch bend through the flange controls.
5. There is an “emergency feedback control” in the upper left hand section of the patch, don’t hesitate to use it as needed.
6. Faders are provided for delay and flange controls, however, scrolling through the number boxes for each parameter will provide more fine tune control, especially when scrolling to the right of the decimal point.

The score is available as a pdf from the composer’s website at: www.steveantosca.com/One_becomes_Two.html

Instrumental and technical requirements for the performance of One becomes Two

violin
The violinist will need a microphone such as a DPA VH4000 or a pick-up such as a Fishman. An appropriate length cable to reach the computer will also be necessary.

computer
The computer operator will need a computer capable of running a Max/MSP patch, and a digital interface which receives input from the violin and sends output to a mixer or powered speakers. The patch is available at: www.steveantosca.com/One_becomes_Two.html

audio
An audio system capable of handing stereo output is required. Although the output is stereo, additional speakers could be placed in the hall if desired. A 4 channel version of the Max/MSP patch is available (www.steveantosca.com/One_becomes_Two.html). This patch routes the left outputs to speakers 1 & 3, and the right outputs to speakers 2 & 4.

an electronic version of these notes are available at: www.steveantosca.com/One_becomes_Two.html
One becomes Two

...when the bad unfolds and from the lesser the greater emerges, then One becomes Two
and the greater figure, which one always saw but which remained invisible, appears with the force of a revelation

—C.G. Jung/Nietzsche
add descending portamento after each pizz.

start with large interval trill, then glissando to low note with m2 trill

Violinist now chooses one of four persona to perform:
- joy
- passion
- duality
- enduring spirit
Persona 1 ~ joy
Dancing in Space